

The 2003 Vermont Youth Risk Behavior Survey

Statewide Report

How many Vermont teens drink alcohol or smoke cigarettes? Where do they get alcohol and cigarettes? How many use marijuana or cocaine? How many are sexually active, and of those, how many are using condoms? How many have been threatened at school? How many have contemplated suicide? Finding answers to these questions is vitally important. This information can put to rest unwarranted fears when the answers are positive; it can mobilize prevention and intervention efforts when the answers are negative; and it can influence the behavior of students by setting norms.

Every two years since 1985, the Department of Health Division of Alcohol and Drug Abuse Programs and the Department of Education Comprehensive School Health Programs have sponsored a survey of Vermont students. The Vermont Youth Risk Behavior Survey (YRBS) measures the prevalence of behaviors that contribute to the leading causes of death, disease, and injury among youth. The YRBS is part of a larger effort to help communities promote the “resiliency” of young people by reducing high risk behaviors and increasing healthy behaviors. The YRBS provides accurate information about Vermont students which enables us to:

- **monitor trends** in their health and risk behaviors
- **compare Vermont** students with a national sample of students
- **plan, evaluate, and improve** community and school programs that prevent health problems and promote healthy behaviors

In 2003, school staff administered the YRBS to 31,814 eighth to twelfth grade Vermont students in 153 schools representing 60 supervisory unions. **For the purposes of this report, data are based on a representative sample of 8,081 Vermont high school and middle school students.** Participation by both schools and individual students was completely voluntary. To protect student privacy, the questionnaire was anonymous. Therefore, it is impossible to identify an individual student’s responses.

How to use the YRBS

The YRBS provides an important piece of the evaluation puzzle. It can help detect changes in risk behaviors over time. It can help identify differences among ages, grades, and genders. It can help focus primary prevention efforts on specific groups of teens, and can suggest whether or not school policies and community programs are having the intended effect on student behaviors.

Think of the YRBS as a tool for starting discussions, for educating the community, for planning and evaluating programs, and for comparing Vermont students with other students nationwide.

- **Starting the Conversation:** Use the YRBS to begin a conversation with teens about the personal choices they make or about the health of their community. Ask them if the results accurately reflect what they see happening around them. How do they explain the results? What ideas do they have about ways to promote healthy behaviors? From their perspective, what seems to be working and what isn't working?
- **Increasing Awareness:** The YRBS provides an opportunity to break through "denial" and to make community members aware of the risks that their young people face. It can also dispel myths and correct misinformation about the "average teenager". The YRBS can be used to accentuate the positive, and to celebrate the fact that many students are abstaining from behaviors that endanger their health and their ability to succeed.
- **Planning and Evaluating Programs:** The YRBS can serve as the basis of a community needs assessment. It can help identify strengths and weaknesses in your community, and can suggest strategies to address those weaknesses.
- **Vermont Trends and National Comparisons:** We have been able to track some information for over 10 years, because Vermont students have been participating in a student survey since 1985. Also, the Centers for Disease Control and Prevention conducts a biennial YRBS of a national sample of high school students. These results permit us to draw comparisons between Vermont and the nation.

A Word of Caution

The YRBS represents the most complete and most recent information available about risk behaviors among Vermont students. However, the YRBS has some limitations that you should keep in mind when interpreting the results.

- **Data Quality:** Several precautions were taken to ensure the reliability and validity of the results. First, the questionnaire has been carefully designed and thoroughly tested by Centers for Disease Control and Prevention. Second, the survey was anonymous to encourage students to be honest and forthright. Third, over 100 consistency checks were run on the data to exclude careless, invalid, or logically inconsistent answers. Fourth, the results are statistically adjusted or “weighted” so that the sample accurately represents all Vermont 8th to 12th graders. These precautions can reduce some sources of error, but not all. For example, some high risk students such as those who have dropped out of school are not represented in the results.
- **Comparing Supervisory Unions to Each Other and to the State:** Participating supervisory unions will receive individual reports summarizing their own results. It is natural to want to know how individual supervisory unions compare to the state overall or to other supervisory unions. We urge caution in making such comparisons because the statewide results are “weighted”, whereas the supervisory union results are not. As a result, it is possible that apparent differences, especially small differences, are due to demographic characteristics, rather than to true differences in prevalence.
- **What, not Why:** The YRBS can indicate what students are doing. It can also suggest the groups of students (e.g., male vs female, 8th graders vs 12th graders) who are more likely to engage in these behaviors. However, the survey does not answer the most important question: why are they doing it?

A Special Thanks!

We are grateful to the principals and superintendents who chose to participate in the YRBS and to the teachers and school staff who administered the survey or in other ways supported this effort. We also wish to thank the Centers for Disease Control and Prevention, Division of Adolescent and School Health for sponsoring the statewide survey through a cooperative agreement with the Vermont Department of Education (Program Announcement #309) and Westat Survey Technical Assistance Project for processing and analyzing the data. Finally, we are grateful to the students who took the time to share with us a piece of their lives. This report is our way of thanking all of you. We hope that you find the survey report informative and useful.

The next YRBS is scheduled for 2005. We encourage schools' participation again, because we will be able to continue to monitor trends in students' health and risk behaviors, compare Vermont students with a national sample of students, and plan, evaluate, and improve communities programs designed to prevent health problems and promote healthy behaviors. If you have any questions or comments about the YRBS, please contact Kelly Hale LaMonda at the Division of Alcohol and Drug Abuse Programs, Vermont Department of Health (802-651-1557).

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Basic Information

Understanding This Report:

- **Format:** The results are presented as data tables, pie charts, bar graphs, and line graphs. In most cases, the data are organized by gender and grade. All results are expressed as percentages of students who endorsed the responses being reported. The percentages in some pie charts may not total 100 percent due to rounding.
- **Trends:** This report includes 16 to 18 year trends for several behaviors including drinking and driving, and use of alcohol, tobacco, and marijuana. The data for years 1985 to 1991 are not based on the YRBS, but on a Vermont student survey that focused on the use of alcohol and other drugs. The questions from the earlier survey were worded slightly differently from the questions on the YRBS: e.g., students were asked about their “monthly use”, instead of their use during “the past 30 days”. In order to adjust for the difference, the trend data for years 1985 to 1991 were estimated. Since the questions were asked both ways on the 1993 and 1995 surveys, we used a simple ratio of the percentages from comparable “monthly” and “30-day” questions to adjust the 1985 to 1991 data.
- **Healthy Vermonters 2010:** Vermont has established goals for promoting health and reducing risk behaviors in *Healthy Vermonters 2010*. Goals relevant to the behaviors surveyed by the YRBS are included in the report for your reference. For more information, see *The Health Status of Vermonters* and *Healthy Vermonters 2010 Vermont’s Blueprint for Improving Public Health*, available from the Vermont Department of Health.

Remember to look at the positive side. In most cases the majority of adolescents are NOT engaging in risky behaviors. Although most of the charts are oriented to examining the prevalence of risk behaviors, please do not forget about the percentage of adolescents who are NOT engaging in the behaviors.

Basic Information

Description of the Sample

- **Sampling:** 19 Vermont high schools of varying sizes, along with their 18 associated middle schools, were randomly selected for the state sample (1:3 systematic sample after sorting by enrollments). A survey of this size was required in order to have an error rate of +/- 5% at each of the five grade levels.
 - **Response Rates:** The school response rate was 93 percent, and the student response rate was 74 percent. Therefore, the overall response rate was 68 percent ($.93 \times .74 = .68$).
 - **Weighting:** The results were “weighted” in order to compensate for differences between the sample and the population of all 8th to 12th grade students in Vermont. The weighting procedure ensures that the sample is representative of the population. This permits us to draw inferences about the entire student population based on the results of the sample.
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Vermont Students Who Participated in the YRBS

	GRADE					GENDER		ALL*
	8	9	10	11	12	F	M	
Number of students	2053	1768	1647	1367	1210	3967	4075	8081

*NOTE: Some students did not indicate their grade or gender. Therefore, totals by grade and by gender do not equal the overall total.

✓ Injuries, Violence, and Safety

This section deals with personal safety and violence, and includes questions about physical fights, dating violence, weapons, vehicle safety, and suicide.

- **Physical Fighting:** Physical fighting often precedes fatal and nonfatal injuries.^{1, 2} During 1999, students ages 12-18 were victims of 880,000 nonfatal violent crimes at school.³ Nearly 60 percent of adolescents report at least one episode of dating violence,⁴ while 20 percent report they had experienced forced sex.⁵ Forced sex has been associated with suicidal ideation and attempts,⁶ alcohol and drug use,⁷ and increased risk of chronic diseases and somatic symptoms.⁸
- **Weapons and Fear:** During adolescence, homicide rates in the US increase substantially from 1.3 per 100,000 in youth aged 10 to 14 to 10.6 per 100,000 in youth aged 15 to 19.⁹ Homicide is the second leading cause of death among all youth aged 15 to 19.⁹ The immediate accessibility of a firearm or other lethal weapon is often a factor.^{10, 11} Approximately nine out of 10 homicide victims in the United States are killed with a weapon.¹²
- **Vehicle Safety - Safety Belts and Bicycle Helmets:** Proper use of lap and shoulder belts could prevent 60% of deaths to motor vehicle occupants.¹³ In 2001, 62 percent of adult Vermonters reported using their safety belt, up from 55 percent in 1993.¹⁴ Head injury is the leading cause of death in bicycle crashes.¹⁵⁻¹⁶ Bicycle helmets might prevent approximately 56 percent of bicycle-related deaths.¹⁷
- **Vehicle Safety - Driving Under the Influence:** Motor vehicle crash injuries are the leading cause of death among youth aged 15 to 24 in the US.¹⁸ For instance, 19 out of 60 deaths (32%) among 15 to 24 year olds in Vermont in 2001 were due to motor vehicle crashes.¹⁹ Alcohol use is associated with 36 percent of motor vehicle related fatalities among those aged 15 to 20 years old.²⁰ Alcohol-related crashes also cause serious injury and permanent disability and rank as the leading cause of spinal cord injury among adolescents and young adults.²¹

✓ Injuries, Violence, and Safety (cont'd)

- **Suicide:** Suicide is the third leading cause of death among US youth aged 15 to 19⁹ and is the second leading cause of death among VT youth aged 15 to 19.²² The suicide rate for people aged 15 to 24 has tripled since 1950, and in 1998 was 11.1 per 100,000.²³ From 1990-1998, Vermont's suicide rate among 15 to 24 year olds was higher than the national average with a rate of 15.1 deaths per 100,000, compared to 12.7 deaths per 100,000 nationwide.²²
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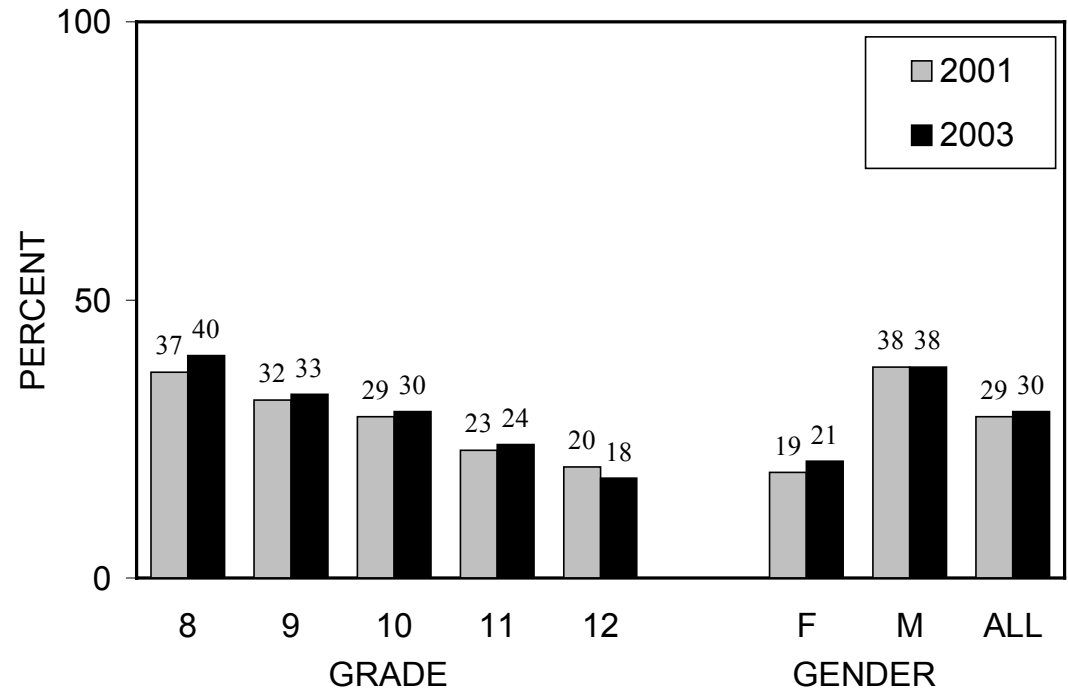
Related *Healthy Vermonters 2010* Goals:

- Increase the percentage of people who always use safety belts to at least 92 percent.
- Further reduce physical assaults by intimate partners to less than 3.6 per 1,000 people age 12 and older.
- Reduce alcohol-related motor vehicle deaths to less than 4 per 100,000.
- Reduce suicide attempts by adolescents to less than 1 percent.
- Reduce suicide deaths to less than 6 per 100,000 people.

■ Physical Fighting

- **Fighting is more common among young students.** In 2003, 8th graders were over twice as likely as 12th graders to have been in a physical fight during the past year (40% vs 18%). This 8th and 12th grade difference was similar in 2001 (37% vs 20%).
- **Females fight less than males.** Male students were almost twice as likely as female students to have been in a physical fight (38% vs 21%). This male and female difference was similar in 1999 (38% vs 19%).

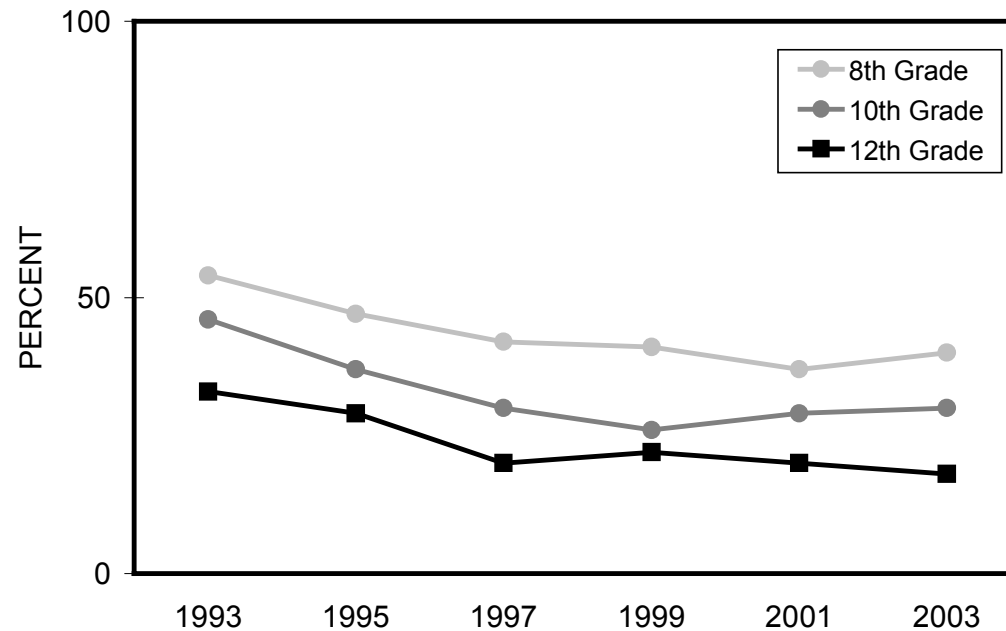
Percent of students who were in a physical fight during the past 12 months



■ Physical Fighting

- **Less fighting.** Physical fighting has decreased across all grades in Vermont since 1993. For example, fighting dropped from 54 to 40 percent among 8th graders, 46 to 30 percent among 10th graders, and 33 to 18 percent among 12th graders.

Physical Fighting in Vermont 1993 to 2003
Percent of students who were in a physical fight during the past 12 months



■ Physical Fighting

- Fewer females are in serious fights.** Female students were two to three times less likely than male students to be in a fight that resulted in an injury (2% vs 4%) and in a fight on school property (7% vs 20%). These figures are similar to the 2001 results.
- Fighting on school property is more common among younger students.** Eighth graders were over three times more likely than 12th graders to fight on school property (20% vs 6%). Overall, 14 percent of Vermont students fought on school property, similar to the 2001 overall rate (14%).

PHYSICAL FIGHTING	GRADE					GENDER		ALL	
	8	9	10	11	12	F	M	2003	2001
Percent of students who, during the past 12 months, :									
Were in a physical fight and had to be treated by a doctor or nurse	3	3	3	3	2	2	4	3	3
Were in a physical fight <u>on school property</u>	20	16	14	11	6	7	20	14	14

■ Physical Fighting

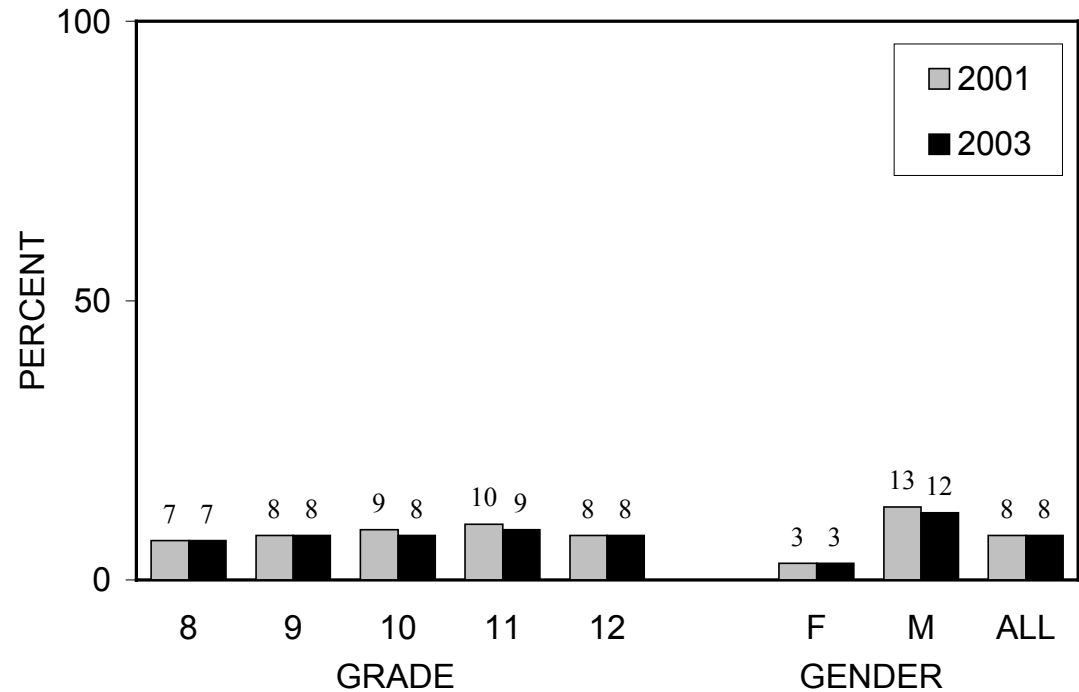
- **Overall, 6 percent of students have been hit, slapped, or physically hurt by their boy/girlfriend during the past year.** No significant difference was seen between female students and male students.
- **Approximately one out of 10 students (9%) have been touched against their wishes sexually or forced to touch someone else sexually.** Female students were more likely than male students to report being touched or forced to touch someone else (14% vs 4%)
- **Overall, 5 percent of students have been forced to have sexual intercourse.**

ABUSIVE BEHAVIOR	GRADE					GENDER		ALL	
	8	9	10	11	12	F	M	2003	2001
Percent of students who's boy/girlfriend hit, slapped or physically hurt them during the past 12 months	5	6	6	7	6	5	7	6	7
Percent of students who have ever been:									
Touched against their wishes or forced to touch someone else	7	9	10	8	10	14	4	9	9
Forced to have sexual intercourse	3	3	5	5	6	6	3	5	5

■ Weapons and Fear

- **Males carry weapons to school more than females.** Male students were four times more likely to carry a weapon on school property than female students (12% vs 3%). This pattern is similar to the 2001 results (13% vs 3%).

Percent of students who carried a weapon such as a gun, knife, or club on school property during the past 30 days



■ Weapons and Fear

- **Overall, 4 percent of students did not go to school because they felt unsafe.** No difference was seen between female and male students.
- **Males are threatened with weapons at school more than females.** Male students were almost twice as likely as female students to have been threatened with a weapon on school property (9% vs 5%).
- **Younger students have their property stolen at school more than older students.** Overall, 26 percent of 8th grade students compared to 20 percent of 12th students reported that someone stole or deliberately damaged their property on school property.

SAFETY, WEAPONS, AND DAMAGE TO PROPERTY									
	GRADE					GENDER		ALL	
	8	9	10	11	12	F	M	2003	2001
Percent of students who:									
Did not go to school because they felt unsafe during the past 30 days	5	5	4	3	3	4	4	4	4
Were threatened or injured with a weapon <u>on school property</u> during the past 12 months	6	9	9	6	4	5	9	7	6
Said that someone had stolen or deliberately damaged their property <u>on school property</u> during the past 12 months	26	28	27	24	20	23	27	25	27

■ Vehicle Safety - Safety Belts

- **Safety belt use is up.**

Overall, 84 percent of students reported always or almost always wearing their safety belt when riding in a car, compared to 79 percent in 2001, 77 percent in 1999, 75 percent in 1997, 72 percent in 1995, and 63 percent in 1993.

- **Females wear safety belts more often than males.**

Eighty-seven percent of female students wore their safety belts when riding in a car, compared to 80 percent of male students. The difference between females and males was similar in 2001 (83% vs 75%).

SAFETY BELT USE	GRADE					GENDER		ALL	
	8	9	10	11	12	F	M	2003	2001
Percent of students who wear a safety belt when riding in a car driven by someone else									
Always or almost always	84	83	84	86	82	87	80	84	79
Sometimes	9	9	9	9	10	8	10	9	11
Never or rarely	7	8	7	6	8	5	10	7	11

■ Vehicle Safety - Safety Belts

- **Almost 9 out of 10 of students buckle up when driving.** Overall, 88 percent of students reported always or almost always wearing their safety belt when driving a car.
- **Females buckle up more often than males.** Over nine out of 10 (93%) female students always or almost always wore their safety belt when driving a car, compared to 84 percent of male students. This difference was similar in 2001 (90% vs 79%).

SAFETY BELT USE	GRADE					GENDER		ALL	
	8	9	10	11	12	F	M	2003	2001
Percent of students who wear a safety belt when <i>driving a car</i>									
Always or almost always	69	85	94	91	87	93	84	88	84
Sometimes	8	6	2	4	5	4	6	5	5
Never or rarely	22	9	4	5	8	4	10	7	11

■ Vehicle Safety - Bicycle Helmets

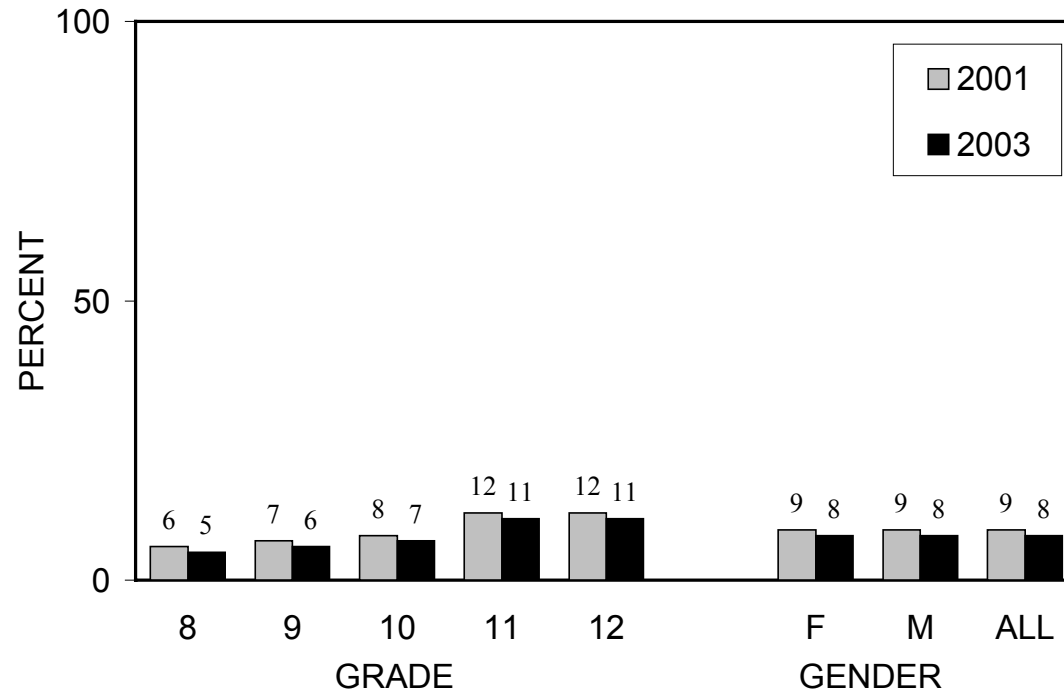
- **Bicycle helmet use is up since 1993.** Overall, 38 percent of students always or almost always wore helmets when riding bicycles, compared to 36 percent in 2001, 31 percent in 1999, 26 percent in 1997, 16 percent in 1995, and 11 percent in 1993.
- **Younger students wear bicycle helmets more than older students.** More 8th graders than 12th graders always or almost always wore helmets when riding bicycles (43% vs 33%). This difference was similar in 2001 (45% vs 30%).

BICYCLE HELMET USE	GRADE					GENDER		ALL	
	8	9	10	11	12	F	M	2003	2001
Frequency of helmet use (in percents) among students who rode a bicycle in the past 12 months									
Always or almost always	43	40	36	35	33	40	36	38	36
Sometimes	14	14	12	11	9	13	11	12	12
Never or rarely	44	46	53	54	58	47	52	50	52

■ Vehicle Safety - Crashes

- Overall, 8 percent of students were injured in a car crash during the past year.
- Older students are more likely than younger students to have been injured in a car crash. Twelfth graders were twice as likely as 8th graders to be injured in a car crash during the past year (11% vs 5%).

Percent of students who were injured in a car or other vehicle crash during the past 12 months



■ Vehicle Safety - Crashes

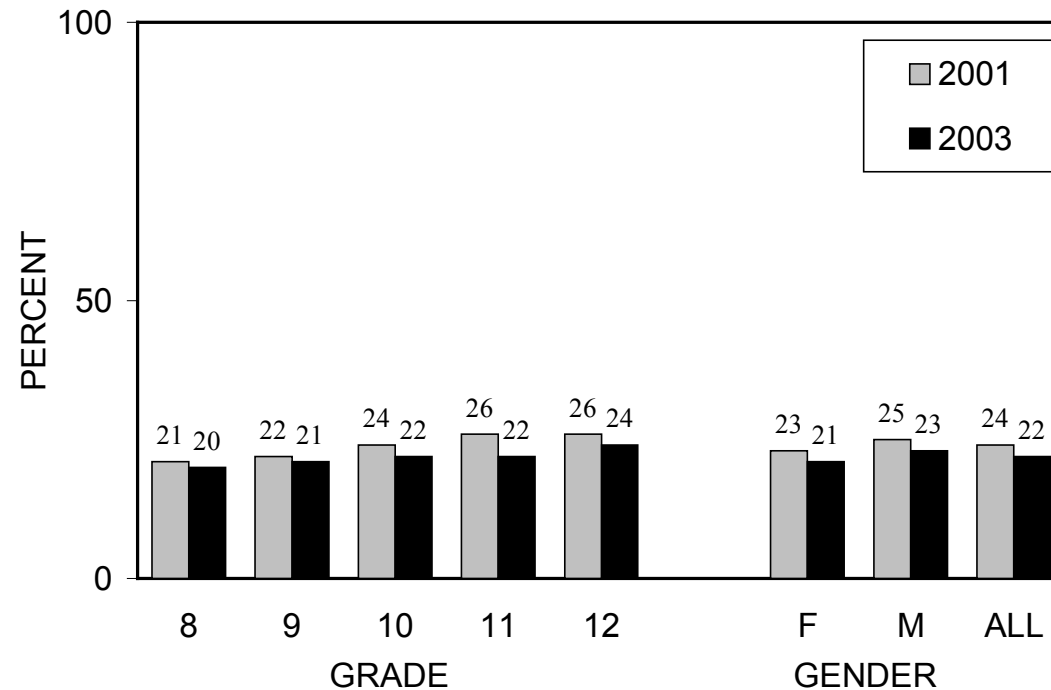
- **The majority of drivers involved in car crashes are young.** In half (50%) of those crashes where students were injured, the driver was 17 years old or younger.
- **More males than females who are injured in a car crash are not wearing their safety belt at the time of the crash.** More than half of male students (52%), compared to 34 percent of female students were not wearing their safety belt when injured in a car crash.

MOTOR VEHICLE CRASHES									
	GRADE					GENDER		ALL	
	8	9	10	11	12	F	M	2003	2001
Percent of students who were injured in a crash during the past 12 months, and:									
The driver was 17 years old or younger	26	41	38	56	45	43	44	44	50
They were driving	20	18	18	45	45	29	36	33	30
They were not wearing their safety belt	35	35	32	24	25	24	35	30	44

■ Vehicle Safety - Driving Under the Influence

- Riding with drinking drivers has decreased since 1995.**
 Twenty-two percent of students reported riding with a drinking driver during the past 30 days, compared to 24 percent in 2001, 26 percent in 1999, 31 percent in 1997, and 37 percent of students in 1995.

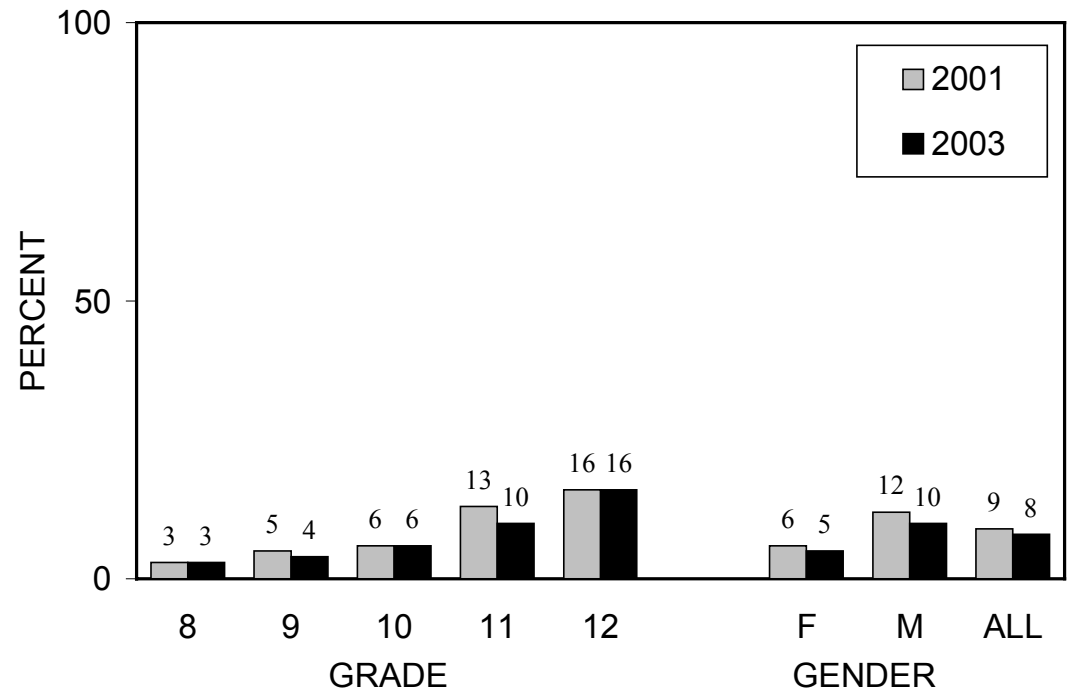
Percent of students who during the past 30 days rode in a car or other vehicle driven by someone who had been drinking alcohol



■ Vehicle Safety - Driving Under the Influence

- Fewer females drink and drive than males.** Female students were half as likely as male students to drive a car after drinking alcohol (5% vs 10%). This difference is similar to results in 2001 (6% vs 12%).
- Older students drink and drive more than younger students.** Twelfth graders were five times more likely than 8th graders to drive when they had been drinking alcohol (16% vs 3%). This difference is similar to results in 2001 (16% vs 3%).

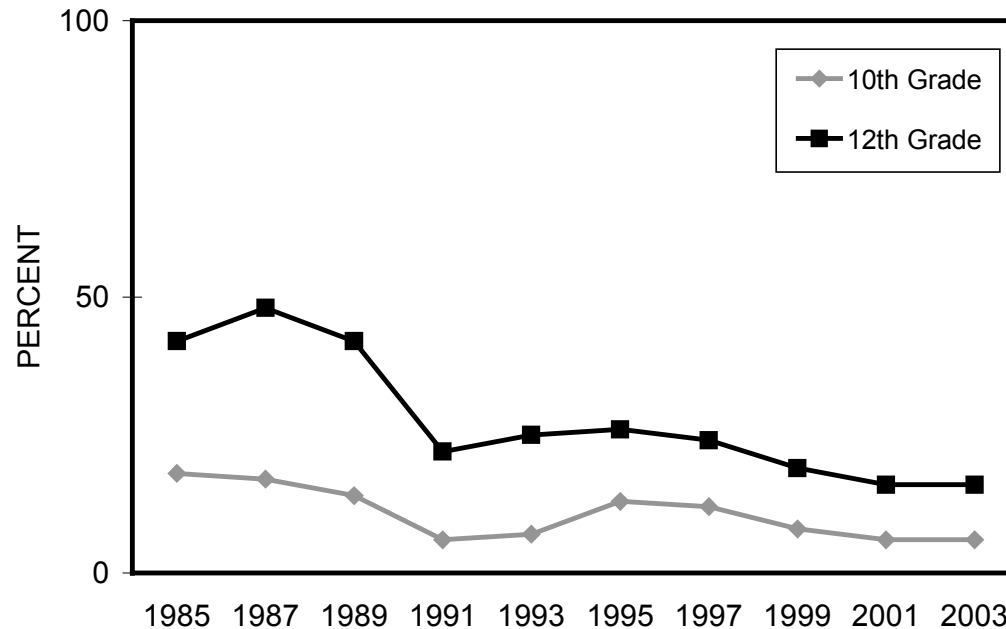
Percent of students who during the past 30 days drove a car or other vehicle when they had been drinking alcohol



■ Vehicle Safety - Driving Under the Influence

- **Drinking and driving has decreased since 1985.**
Among 12th graders, drinking and driving decreased from 42 percent in 1985 to 16 percent in 2003. This pattern was similar to, but less dramatic among 10th grade drivers (18% vs 6%).

Drinking and Driving 1985 to 2003
Percent of students who during the past 30 days drove a car or other vehicle when they had been drinking alcohol *

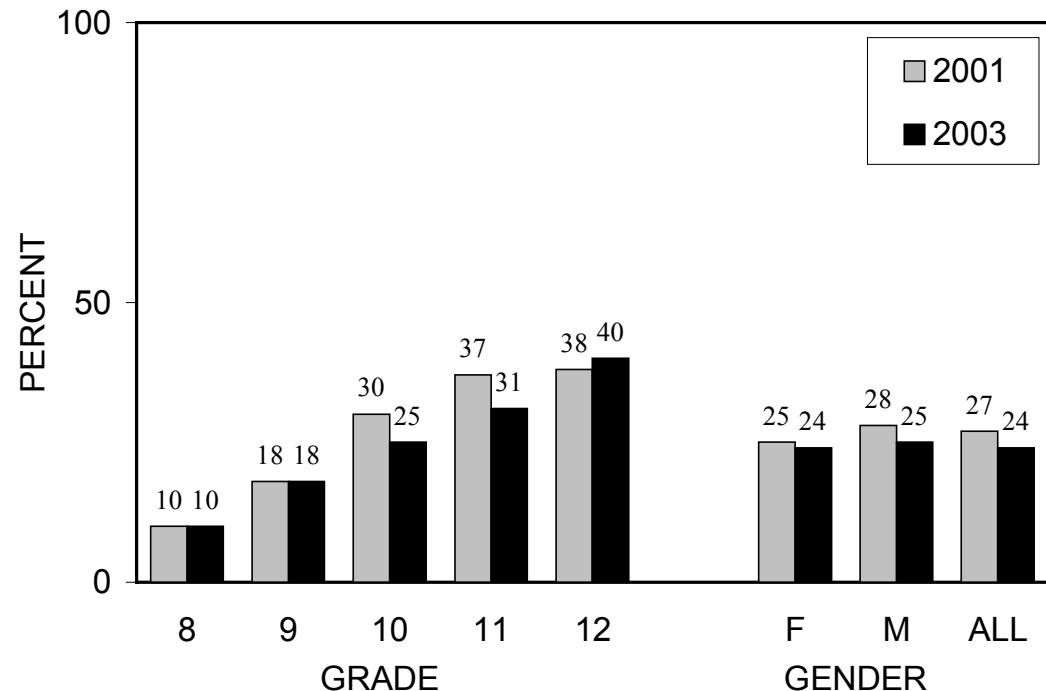


*The data provided for 1985 to 1993 are estimates based on earlier versions of the Vermont student survey (see page 1).

■ Vehicle Safety - Driving Under the Influence

- Approximately one-quarter (24%) of students have ridden with someone who was smoking marijuana.
- Older students ride with someone who has been smoking marijuana more than younger students. Twelfth graders were four more times likely than 8th graders to have ridden in a car driven by someone smoking marijuana (40% vs 10%).

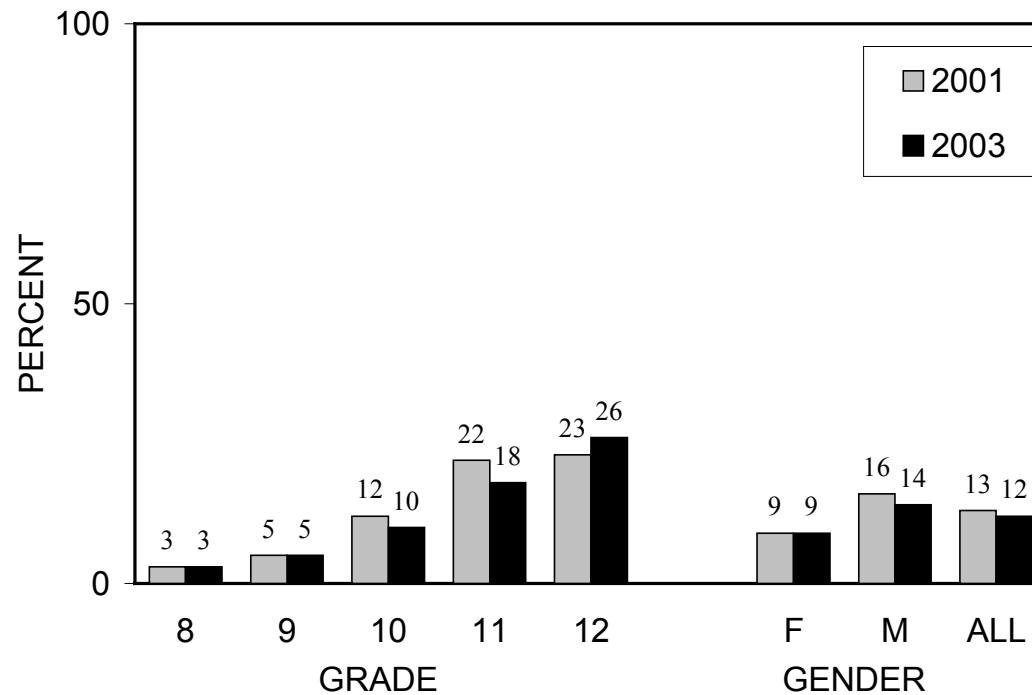
Percent of students who during the past 30 days rode in a car or other vehicle driven by someone who had been smoking marijuana



■ Vehicle Safety - Driving Under the Influence

- **Fewer female students drive when they have been smoking marijuana than male students.** Females were less likely than males to report driving when they had been smoking marijuana (9% vs 14%). This difference was similar in 2001 (9% vs 16%).
- **Older students drive when they have been smoking marijuana more than younger students.** Twelfth graders were over eight times more likely than 8th graders to drive when they had been smoking marijuana (26% vs 3%).

Percent of students who during the past 30 days drove a car or other vehicle when they had been smoking marijuana



■ Suicide

- **Suicide plans are down since 1995.** Overall, 13 percent of students made a suicide plan during the past 12 months, compared to 16 percent in 1999, 18 percent in 1997, and 22 percent in 1995.
- **More females than males consider suicide.** Female students were more likely than male students to make a suicide plan (16% vs 10%) and actually attempt suicide (10% vs 4%). These differences between females and males were similar to results from 2001.

SUICIDE	GRADE					GENDER		ALL	
	8	9	10	11	12	F	M	2003	2001
Percent of students who during the past 12 months:									
Felt so sad or hopeless almost every day for at least 2 weeks that they stopped doing some usual activities	21	24	25	23	22	29	18	23	NA
Made a plan about how to attempt suicide	11	14	15	12	13	16	10	13	13
Actually attempted suicide	6	9	8	5	6	10	4	7	7
Attempted suicide and required medical treatment	2	2	2	2	2	3	2	2	2

✓ Alcohol, Tobacco, and Other Drugs

The questions in this section ask students about their use of alcohol, tobacco products, marijuana, inhalants, cocaine, steroids, heroin, hallucinogens, and methamphetamines. The questions ask the age at which students first used alcohol, cigarettes, marijuana, cocaine, and inhalants and how often they use them now.

- **Alcohol Use** is a major contributing factor in one half to two-thirds of all homicides and serious assaults,²⁴ and approximately 30 percent of all motor vehicle crashes that result in injury.²⁵ Approximately 100,000 American deaths per year are attributable to misuse of alcohol.²⁴ Heavy drinking among youth has been linked to physical fights, property destruction, academic and job problems, and trouble with law enforcement authorities.²⁶
- **Tobacco Use** is the single most preventable cause of death in the United States,²⁷ accounting for more than one of every five deaths.²⁸ Smoking causes heart disease; cancers of the lung, larynx, mouth, esophagus, and bladder; stroke; and chronic obstructive pulmonary disease.²⁷ In addition, smoking is related to poor academic performance and the use of alcohol and other drugs.²⁹ Cigar smoking has become increasingly common among young people. In fact, the prevalence of cigar use in 2001 among US high school students was 22 percent among males and 9 percent among females.³⁰ Cigar smoking has been associated with cancers of the oral cavity, larynx, esophagus, and lung and with chronic obstructive lung disease.³¹ Smokeless tobacco use primarily begins in early adolescence.³² Approximately 75 percent of oral cavity and pharyngeal cancers are attributed to the use of smoked and smokeless tobacco.³³
- **Marijuana Use** is associated with smoking-related respiratory damage, short-term memory loss, decreased motivation, and psychological dependence.³⁴ More teens enter treatment with a primary diagnosis for marijuana dependence than for all other illicit drugs combined.³⁵
- **Inhalant Use** is the deliberate inhalation or sniffing of common products found in homes and schools, like glue and cleaners, and some gases intended for medical or dental purposes to obtain a “high”. Inhalant use can cause short-term memory loss, brain, lung, liver, and kidney damage, or even sudden death. Inhalants are legal, easy to get, inexpensive and difficult to detect, and experimentation typically begins in the preteen years.³⁶

✓ Alcohol, Tobacco, and Other Drugs (cont'd)

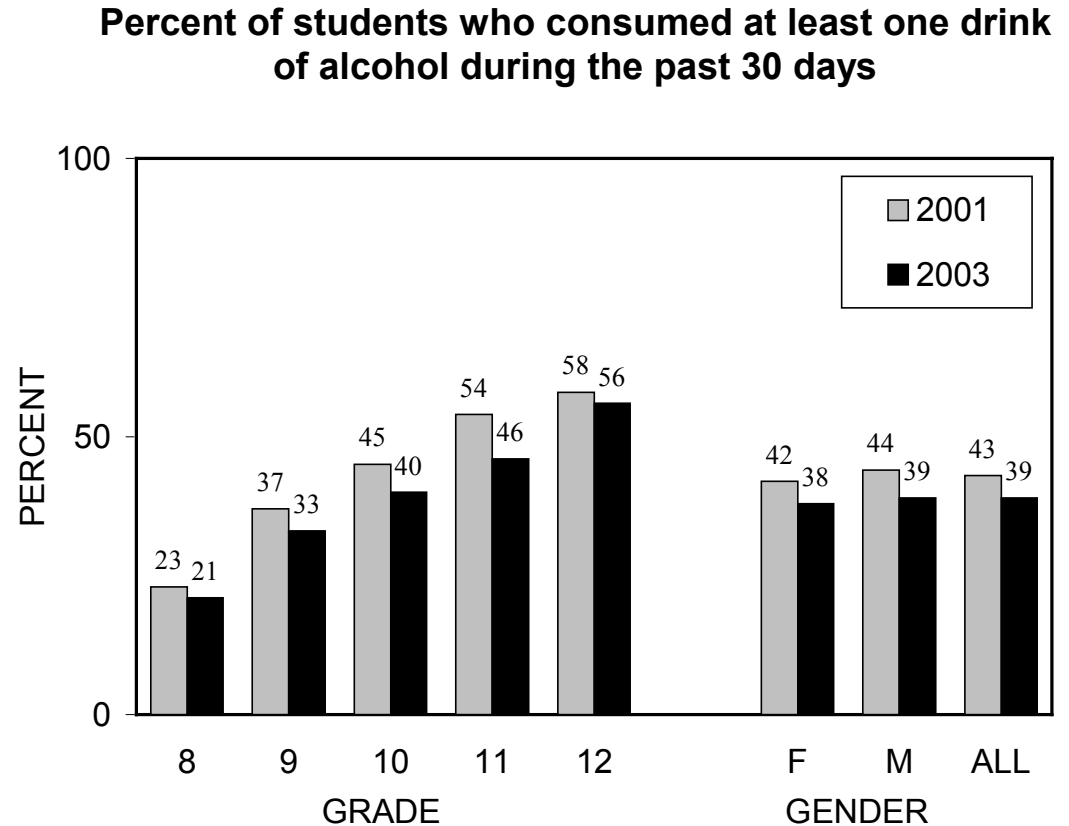
- **Other Drug Use** is related to suicide, early unwanted pregnancy, school failure, delinquency, and transmission of sexually transmitted diseases (STD), including HIV infection.³⁷ In spite of improvements in recent years, illicit drug use is greater among high school students and other young adults in the United States than in any other industrialized nation in the world.³⁸
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Related *Healthy Vermonters 2010* Goals:

- Reduce the percentage of youth who use alcohol prior to age 13 to 0 percent.
- Reduce the percentage of youth who engage in binge drinking in the past month to 3 percent or less.
- Reduce the percentage of youth who smoked cigarettes in the past month to 16 percent or less.
- Reduce the percentage of youth who used spit tobacco in the past month to 1 percent or less.
- Reduce the percentage of youth who smoked cigars, cigarillos, or little cigars in the past month to 8 percent or less.
- Reduce the percentage of youth who used marijuana in the past month to 0.7 percent or less.

■ Alcohol Use

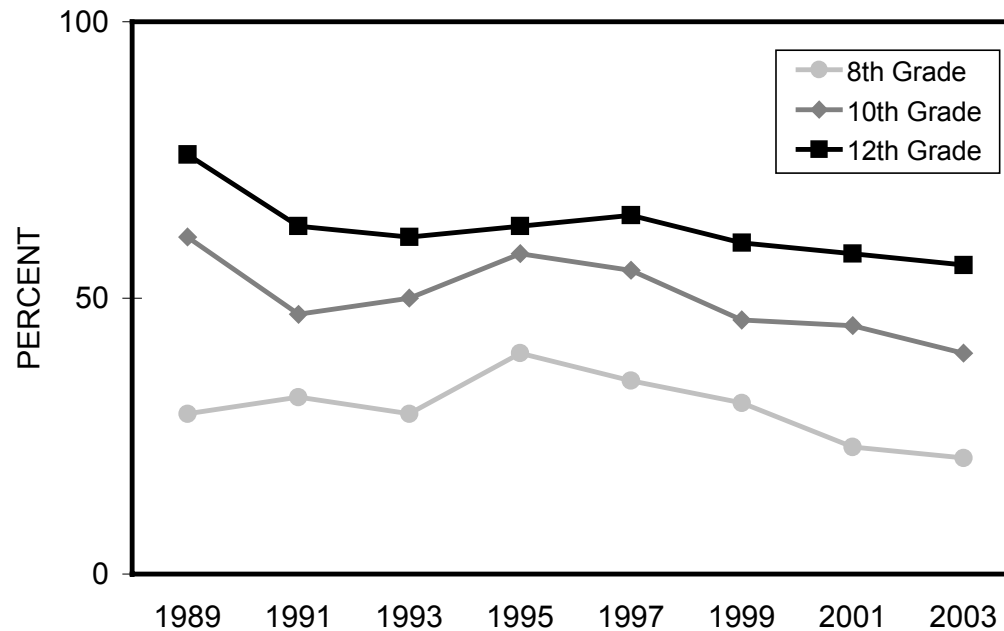
- **The majority of students do not drink.** Overall, 39 percent of students drank alcohol, compared to 43 percent in 2001, 46 percent of students in 1999, 50 percent in 1997 and 53 percent in 1995.
- **Alcohol use increases across grades.** More 12th graders than 8th graders drank alcohol (56% vs 21%).



■ Alcohol Use

- **Less drinking.** Alcohol use among 12th graders dropped from 76 percent in 1989 to 56 percent in 2003. Alcohol use among 10th graders dropped from 61 percent in 1989 to 40 percent in 2003. Alcohol use among 8th graders dropped from 40 percent in 1995 to 21 percent in 2003.

Alcohol Use in Vermont 1989 to 2003
Percent of students who drank during the past 30 days*

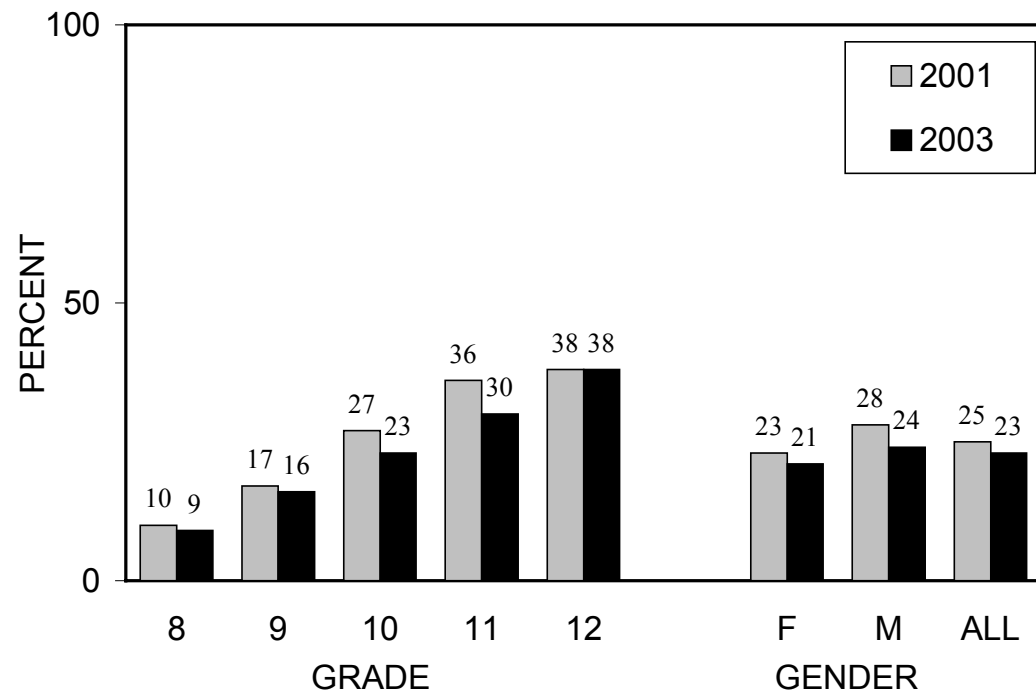


*The data provided for 1989 to 1991 are estimates based on earlier versions of the Vermont student survey (see page 1).

■ Alcohol Use

- **Approximately, one out of four students binge drink.** Binge drinking is defined as having five or more drinks of alcohol within a couple of hours. Overall, 23 percent of students reported binge drinking during the past 30 days.
- **Older students binge drink more than younger students.** Twelfth graders were over four times as likely as 8th graders to binge drink (38% vs 9%). The difference between 12th and 8th graders was similar in 2001 (38% vs 9%).

Percent of students who binged on alcohol (had five or more drinks of alcohol within a couple of hours) during the past 30 days

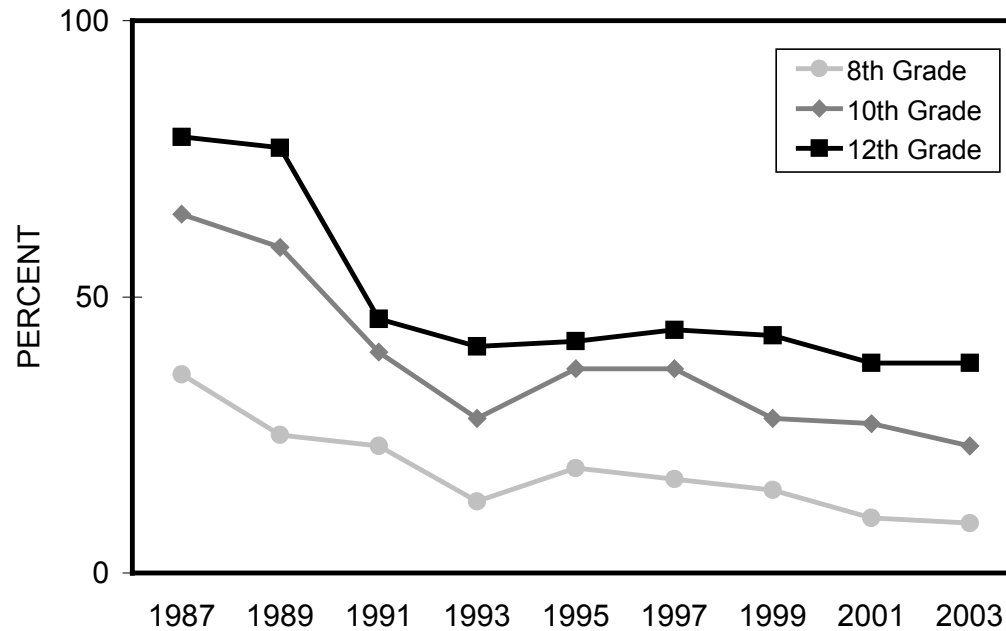


■ Alcohol Use

- **Binge drinking is decreasing.**

Among 8th graders binge drinking decreased from 36 percent in 1987 to 9 percent in 2003. Among 10th graders, binge drinking decreased from 65 percent in 1987 to 23 percent in 2003. Among 12th graders, binge drinking decreased from 79 percent in 1987 to 38 percent in 2003.

Alcohol Use in Vermont 1987 to 2003
Percent of students who “binged” during the past 30 days*



*The data provided for 1987 to 1991 are estimates based on earlier versions of the Vermont student survey (see page 1).

■ Alcohol Use

- Fewer students have ever had a drink of alcohol since 1995.** In 2003, 65 percent of students had consumed alcohol, other than a few sips, compared to 69 percent in 2001, 72 percent in 1999, 74 percent in 1997 and 77 percent in 1995.
- Females start drinking alcohol later than males.** Female students were less likely than male students to report consuming alcohol before age 13 (21% vs 28%). The difference between females and males was similar in 2001 (23% vs 30%).
- Fewer females drink frequently than males.** Female students were almost half as likely as male students to have consumed alcohol on 10 or more days during the past month (4% vs 7%). The difference between females and males was similar in 2001 (4% vs 7%).

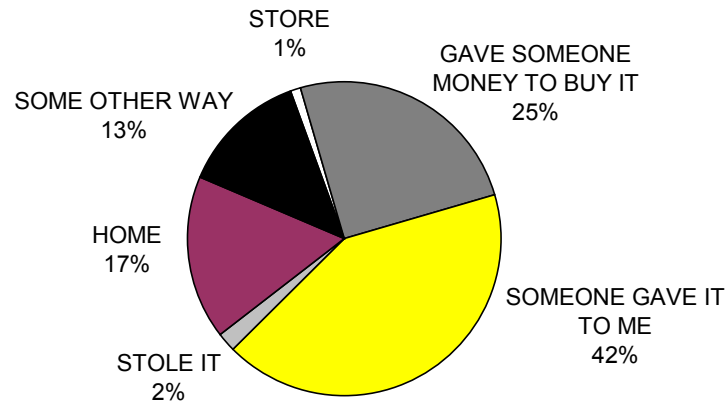
ALCOHOL USE	GRADE					GENDER		ALL	
	8	9	10	11	12	F	M	2003	2001
Percent of students who:									
Have ever had a drink of alcohol, other than a few sips	43	58	68	75	83	66	65	65	69
First consumed alcohol, other than a few sips, before 13 years of age	31	28	25	20	18	21	28	25	27
Drank alcohol on 3-9 days during the past 30 days	6	12	15	19	25	15	16	15	17
Drank alcohol on 10 or more days during the past 30 days	3	5	6	7	8	4	7	6	6
“Binged” on alcohol 3 or more days during the past 30 days	4	9	15	19	27	13	16	14	10
Drank alcohol <u>on school property</u> during the past 30 days	3	5	5	4	6	4	6	5	5

■ Alcohol Use

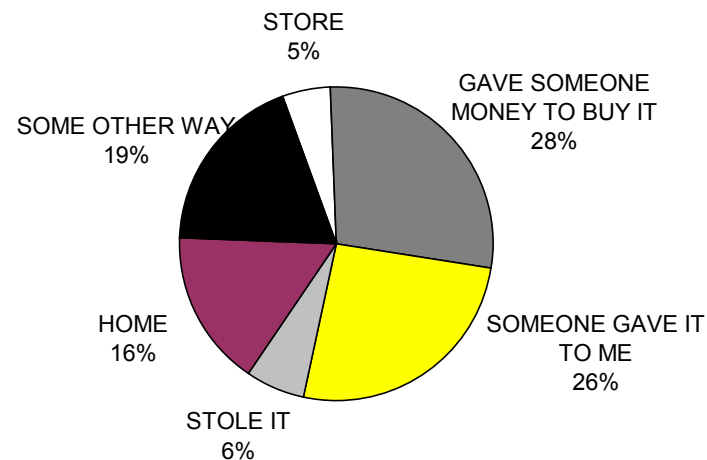
- **Most students obtain alcohol by someone giving it to them or by giving someone money to buy it for them.** Overall, 34 percent of the students who drank during the past 30 days reported someone gave them alcohol and 27 percent reported giving someone money to buy alcohol for them.
- **Some students obtain alcohol from home.** Among students who drank alcohol during the past 30 days, 17 percent of females and 16 percent of males got their alcohol from home.

Where students get their own alcohol
(only among students who drank during the past 30 days)

FEMALES



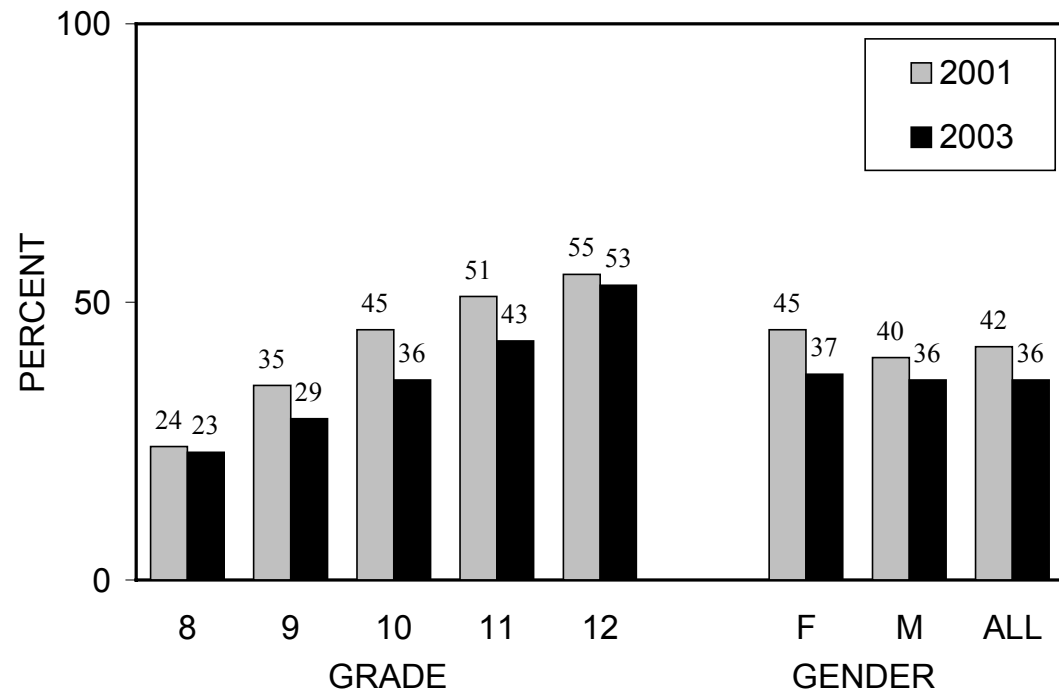
MALES



■ Tobacco Use

- **Smoking continues to decline.** In 2003, 36 percent of students had ever smoked a whole cigarette down from 42 percent in 2001, 54 percent in 1999, and 59 percent in 1997.
- **More older students than younger students have smoked.** In 2003, 53 percent of 12th graders compared to 23 percent of 8th graders have ever smoked a whole cigarette. This difference was similar in 2001 (55% vs 24%).

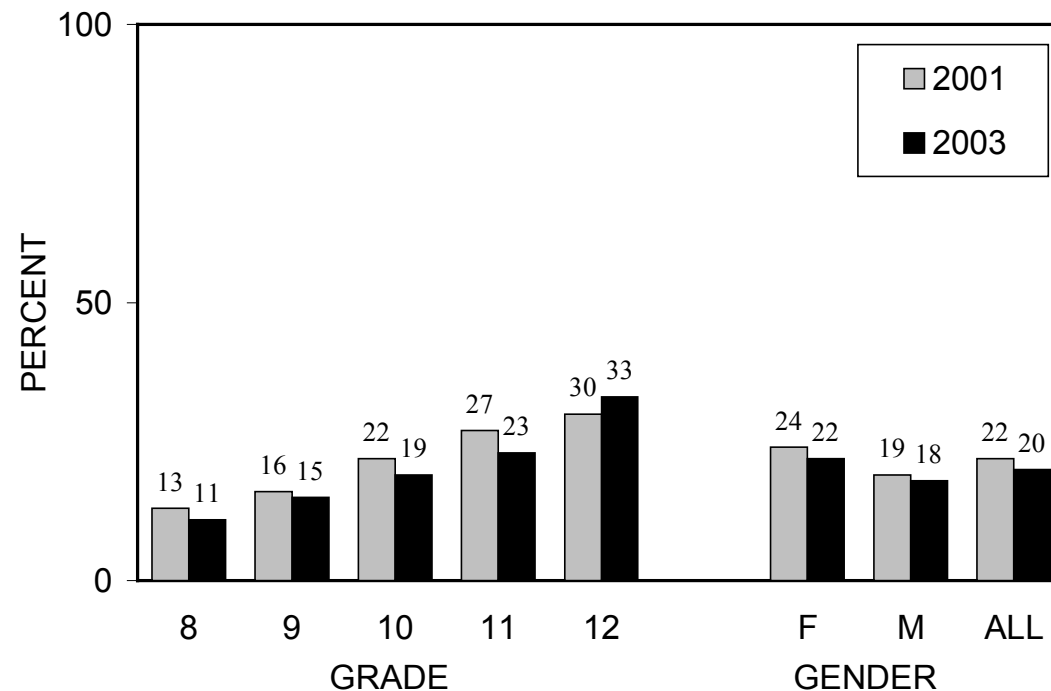
Percent of students who have ever smoked a whole cigarette



■ Tobacco Use

- **One-fifth of Vermont students smoke.** Overall, 20 percent of students reported smoking at least once during the past 30 days, compared to 22 percent in 2001, 31 percent in 1999, 36 percent in 1997 and 38 percent in 1995.
- **More older students than younger students smoke.** In 2003, 33 percent of 12th graders smoked cigarettes during the past 30 days, compared to 11 percent of 8th graders. This difference was similar in 2001 (30% vs 11%).

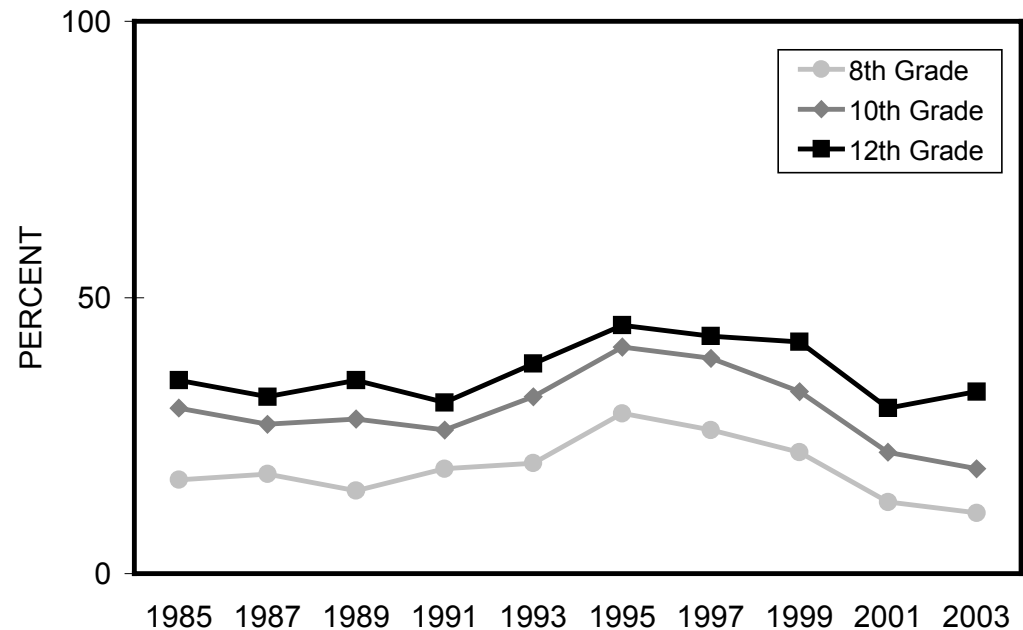
Percent of students who smoked cigarettes on one or more days during the past 30 days



■ Tobacco Use

- **Cigarette smoking is decreasing.** Smoking during the past 30 days increased from 1991 to 1995 and is now declining. This is especially true across 8th and 10th grades. From 1995 to 2003 cigarette use decreased from 41 to 19 percent among 10th graders and 29 to 11 percent among 8th graders.

Cigarette Smoking in Vermont 1985 to 2003
Percent of students who smoked cigarettes during the last 30 days*

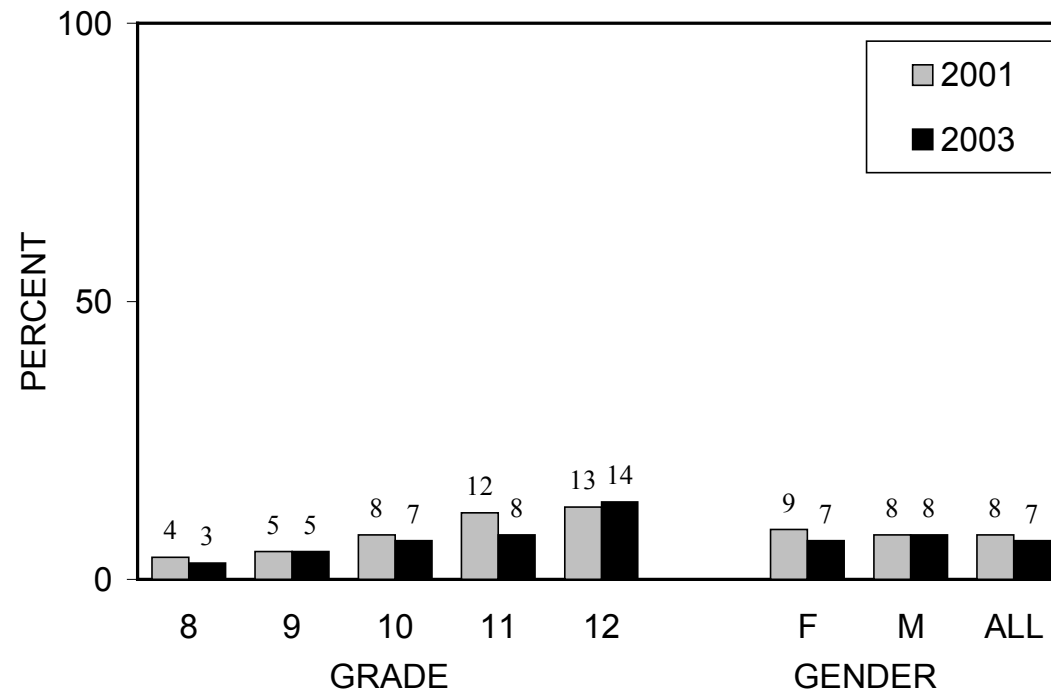


*The data provided for 1985 to 1991 are estimates based on earlier versions of the Vermont student survey (see page 1).

■ Tobacco Use

- **Overall, 7 percent of Vermont students smoke daily.** Daily smoking among students has decreased from 13 percent in 1999 to 8 percent in 2001 and 7 percent in 2003.
- **More older students than younger students are regular smokers.** In 2003, 14 percent of 12th graders smoked every day, compared to only 3 percent of 8th graders.

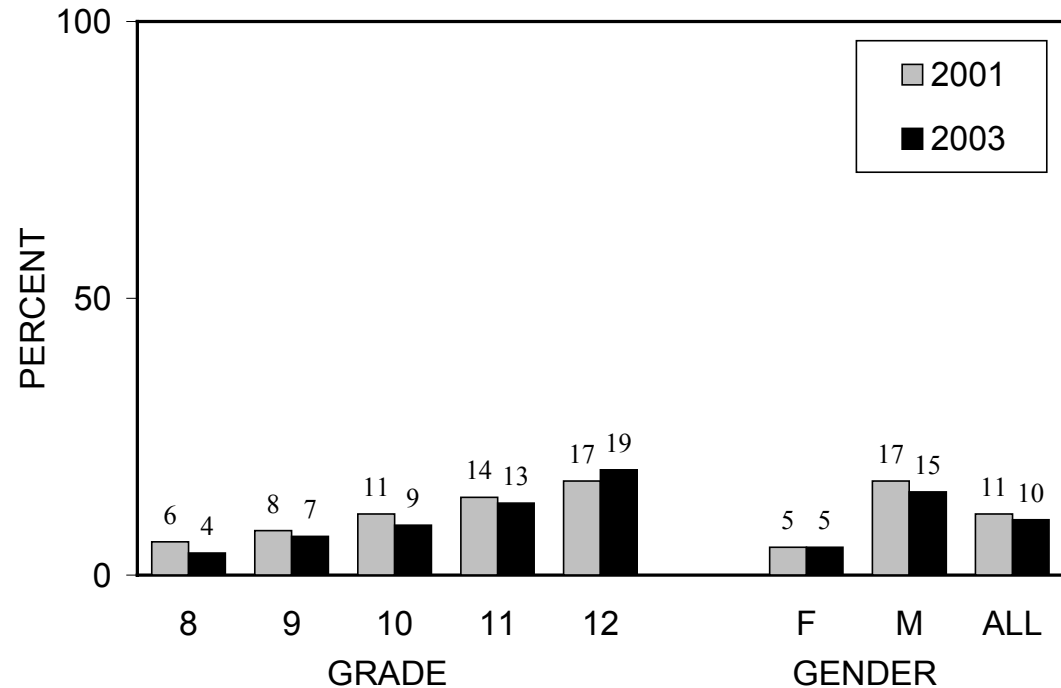
Percent of students who smoked cigarettes every day during the past 30 days



■ Tobacco Use

- One out of ten (10%) Vermont students smoked cigars during the past 30 days.
- **More males smoke cigars than females.** In 2003, 15 percent of males compared to 5 percent of females smoked cigars during the past 30 days.

Percent of students who smoked cigars, cigarillos, or little cigars on one or more days during the past 30 days



■ Tobacco Use

- Eighteen percent of Vermont students started smoking prior to age 13.
- Overall, 12 percent of all students reported trying to quit smoking during the past 12 months.
- More males than females chew tobacco. Male students were eight times more likely than female students to chew tobacco (8% vs 1%).

TOBACCO USE	GRADE					GENDER		ALL	
	8	9	10	11	12	F	M	2003	2001
Percent of students who:									
Smoked a whole cigarette prior to age 13	17	18	17	18	18	16	19	18	21
Smoked more than 10 cigarettes on days smoked during the past 30 days	2	2	3	4	7	2	4	4	3
Smoked more than a pack on days smoked during the past 30 days	1	1	1	1	2	1	2	1	1
Tried to quit smoking cigarettes during the past 12 months	8	11	12	12	17	14	10	12	13
Used chewing tobacco or snuff during the past 30 days	3	4	4	6	6	1	8	5	5

■ Tobacco Use

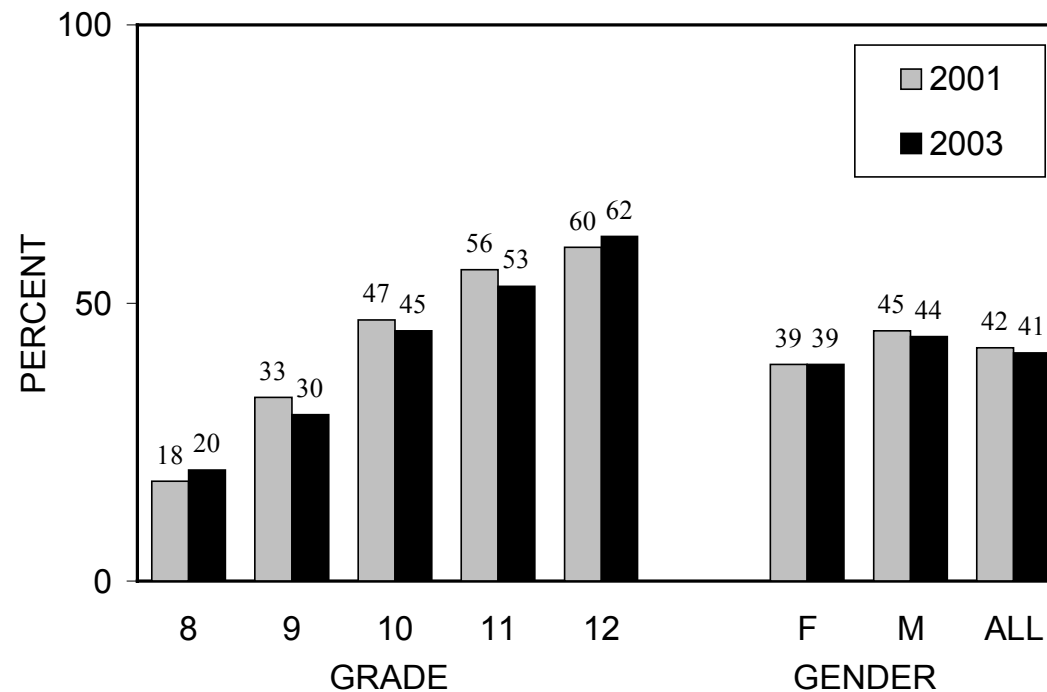
- Over half (54%) of Vermont students were in the same room with someone who was smoking cigarettes during the past 7 days.
- Overall, 40 percent of students were in a car with someone who was smoking cigarettes during the past 7 days.

TOBACCO USE	GRADE					GENDER		ALL	
	8	9	10	11	12	F	M	2003	2001
Percent of students who, during the past 7 days:									
Were in the same room with someone who was smoking cigarettes	49	51	54	55	60	54	54	54	NA
Were in a car with someone who was smoking cigarettes	36	36	42	39	47	40	39	40	NA

■ Marijuana Use

- **The majority of students have never tried marijuana.** Overall, 41 percent of students have tried marijuana, down slightly from 42 percent in 2001 and 47 percent in 1999.

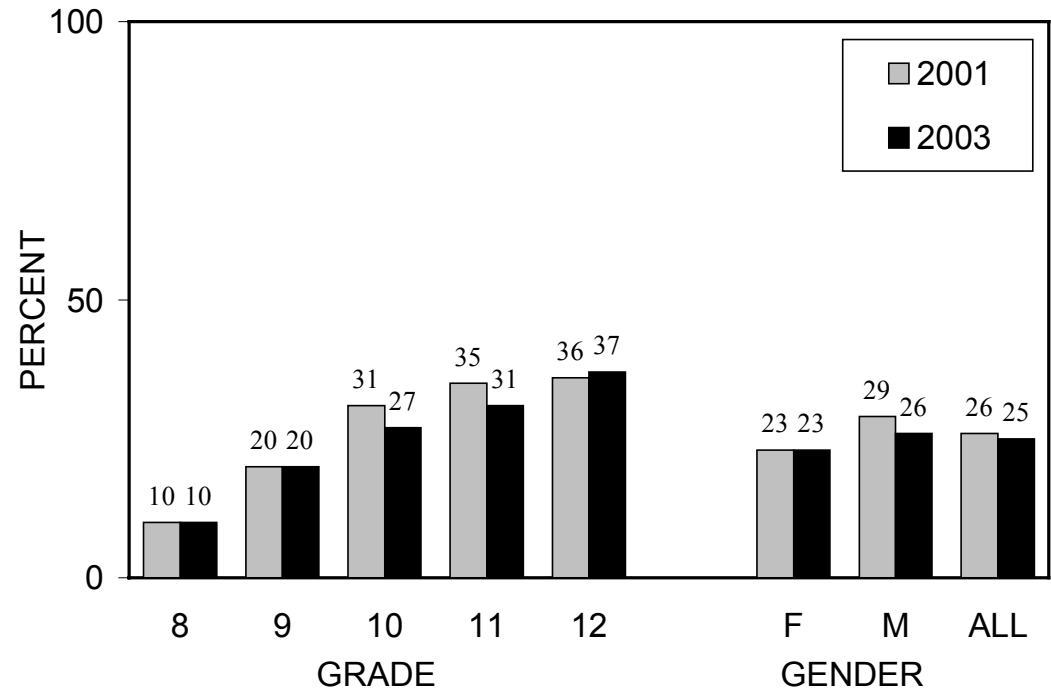
Percent of students who have ever tried marijuana



■ Marijuana Use

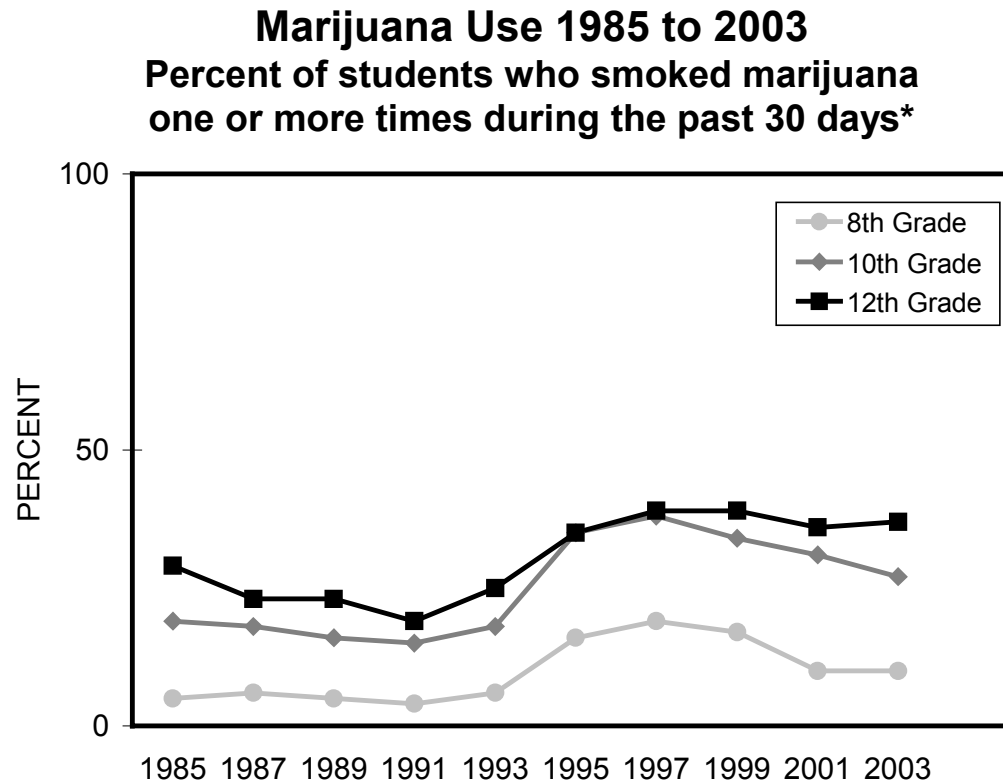
- **Over one-quarter of Vermont students use marijuana.** Overall, 25 percent of students used marijuana during the past 30 days
- **More older students use marijuana than younger students.** Thirty-seven percent of 12th grade students used marijuana, compared to 10 percent of 8th grade students. The difference between 12th and 8th graders is similar to results in 2001 (36% vs 10%).

Percent of students who used marijuana one or more times during the past 30 days



■ Marijuana Use

- **Marijuana use increased from 1991 to 1997 but has begun to decline.** The percentage of students who used marijuana during the past 30 days was level or even slightly declining from 1985 to 1991. From 1991 to 1997, marijuana use dramatically increased among 12th graders (19% to 39%), 10th graders (15% to 38%), and 8th graders (4% to 19%).
- **Marijuana use is starting to decrease especially among younger students.** Among 8th graders use decreased from 19 percent in 1997 to 10 percent in 2003. Among 10th graders, use decreased from 38 percent in 1997 to 27 percent in 2003.



*The data provided for 1985 to 1991 are estimates based on earlier versions of the Vermont student survey (see page 1).

■ Marijuana Use

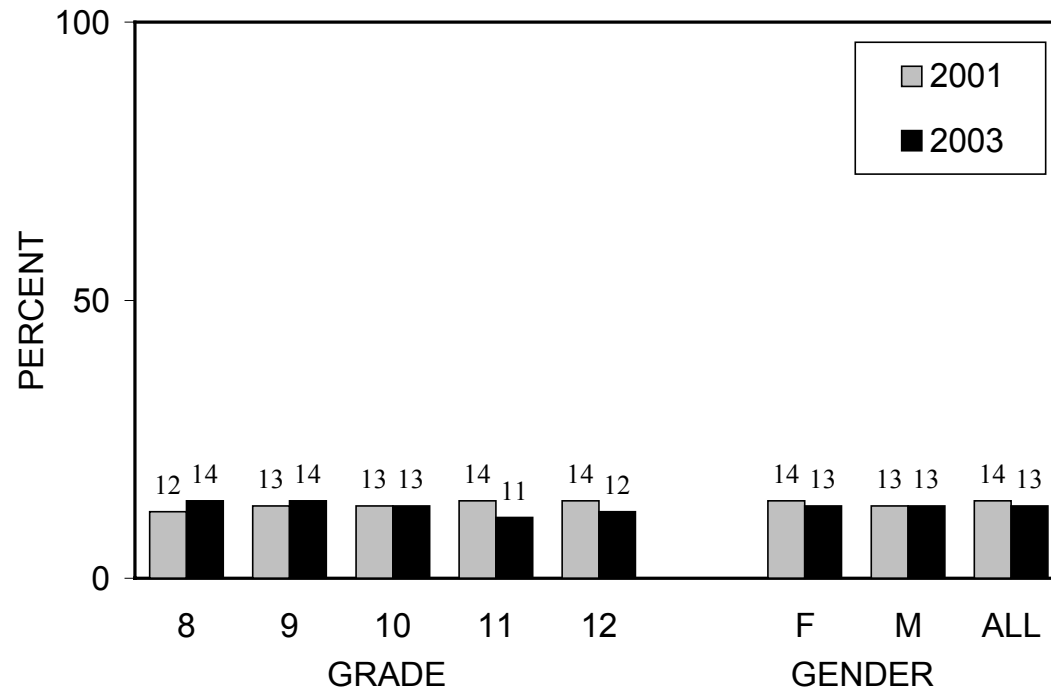
- Overall, 12 percent of students have smoked marijuana by age 13.
- Overall, 7 percent of students use marijuana on school property.

MARIJUANA USE	GRADE					GENDER		ALL	
	8	9	10	11	12	F	M	2003	2001
Percent of students who:									
Tried marijuana before age 13	12	11	12	11	12	9	14	12	12
Used marijuana 3 to 9 times during the past 30 days	2	5	7	8	8	6	5	6	6
Used marijuana 10 or more times during the past 30 days	4	8	11	15	19	8	14	11	12
Used marijuana one or more times <u>on school property</u>	3	6	8	9	9	5	9	7	8

■ Inhalant Use

- **Inhalant use is down since 1995.** Overall, 13 percent of students tried inhalants, compared to 14 percent in 2001, 17 percent in 1999, 22 percent in 1997 and 27 percent in 1995.

Percent of students who have ever used inhalants (e.g., sniffed glue, breathed the contents of aerosol spray cans, inhaled any paints or sprays to get high)

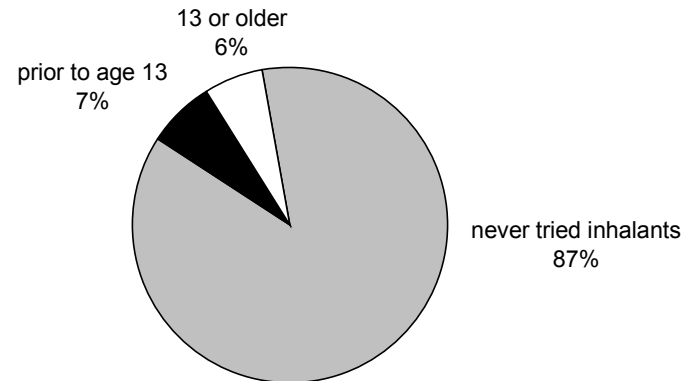


■ Inhalant Use

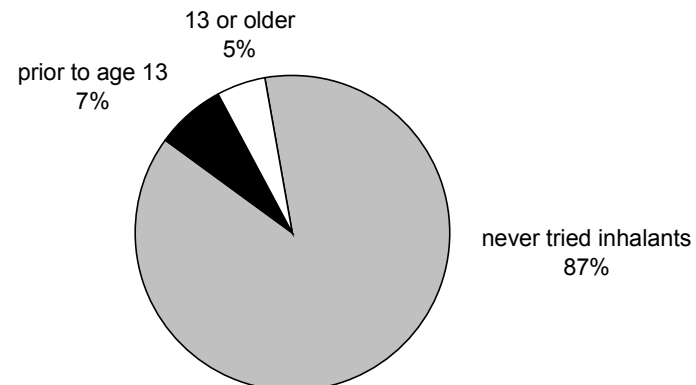
- **Over half of students who have used inhalants tried them prior to age 13.**
Overall, 7 percent of females and males used inhalants prior to age 13 compared to 6 percent of females and 5 percent of males trying inhalants at age 13 or older.

Age at which students first tried inhalants

FEMALES



MALES



■ Other Drug Use

- Overall, 8 percent of Vermont students have used cocaine.

COCAINE USE	GRADE					GENDER		ALL	
	8	9	10	11	12	F	M	2003	2001
Percent of students who have used cocaine:									
During their lifetime	4	6	7	10	13	7	9	8	7
Prior to age 13	2	2	2	2	2	1	2	2	2
During the past 30 days	2	4	4	5	7	3	6	4	4

■ Other Drug Use

- Overall, 3% of Vermont students have used heroin.
- Fewer students are offered drugs at school since 1997. In 2003, 26 percent of students were offered, sold, or given an illegal drug on school property, compared to 28 percent in 1999 and 35 percent in 1997.

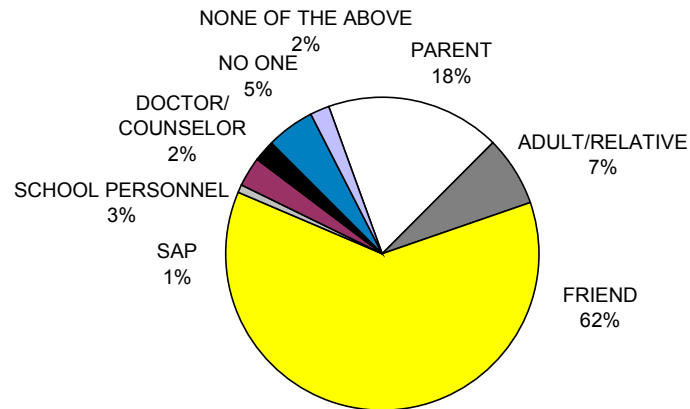
OTHER DRUG USE	GRADE					GENDER		ALL	
	8	9	10	11	12	F	M	2003	2001
Percent of students who during their lifetime have:									
Taken steroids without a prescription	3	5	5	5	5	5	5	5	5
Used heroin	2	3	3	3	3	2	3	3	3
Used heroin prior to age 13	1	1	1	1	1	1	2	1	1
Used methamphetamines	3	6	6	8	8	6	7	6	7
Used hallucinogens	5	9	11	16	19	11	13	12	15
Used a needle to inject any illegal drug into their body	2	2	2	2	2	2	3	2	3
Percent of students who were offered, sold, or given an illegal drug <u>on school property</u> during the past 12 months	12	28	31	29	29	22	30	26	26

■ Other Drug Use

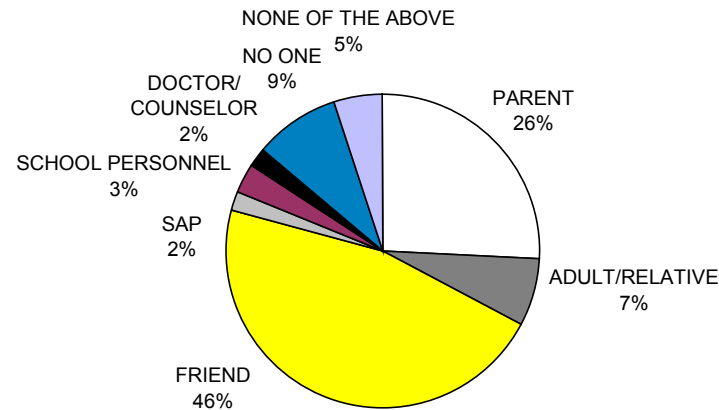
- **Students are more likely to talk with friends than adults about a drug problem.** Sixty-two percent of female students and 46 percent of male students would most likely talk to a friend about a drug problem. Students would more likely talk to a parent than another adult about a drug problem.

If you had a problem with tobacco, alcohol, or other drugs, who would you be most likely to talk to about it?

FEMALES



MALES



✓ Attitudes and Perceptions about Alcohol, Tobacco, and Marijuana Use

The questions in this section ask students how easy it is to get alcohol, tobacco, and marijuana, whether they think it is wrong for someone their age to use alcohol, tobacco, and marijuana, how wrong their parents and other adults in their community think it is for someone their age to use alcohol, tobacco, and marijuana, how harmful they think it is to use alcohol, tobacco, and marijuana.

- **Disapproval of alcohol, tobacco, and marijuana:** Peer disapproval of substance abuse is inversely related to adolescents' reports of use. For example, multiyear tracking of the results of the Monitoring the Future Survey indicates that the prevalence of marijuana use among youth declines as the percentage of youth expressing disapproval of marijuana increases; similarly, an increase in the prevalence of marijuana use among youth during the early 1990s coincided with an apparent decline in the percentage of parents and peer expressing strong disapproval.³⁹
- **Perceived harmfulness of alcohol, tobacco, and marijuana:** The perception of risk in using alcohol and other drugs is an important factor in decreasing use. Data have shown that as perception of harmfulness decreases, there is a tendency for use to increase.³⁹ Therefore, it is important for youth to be informed of the risks of using alcohol, tobacco, and other drugs.
- **Perceived availability of alcohol, tobacco, and marijuana:** The more available alcohol, tobacco, and other drugs are in a community, the higher the risk that young people will use them. Even when youth just think that substances are available, a higher rate of use is often observed.⁴⁰

■ Disapproval of Alcohol, Tobacco, and Other Drug Use

- **Disapproval of smoking cigarettes is increasing.** In 2003, 82 percent of students thought that the adults in their neighborhood would think it is wrong for kids their age to smoke cigarettes, compared to 78 percent in 2001 and 73 percent in 1999.
- **Younger students more than older students report that their parents think it is wrong for them to use alcohol, cigarettes, or marijuana.** For example, 95 percent of 8th graders think that their parents think it is wrong for them to smoke cigarettes, compared to 80 percent of 12th graders.

DISAPPROVAL OF ATOD USE	GRADE					GENDER		ALL	
	8	9	10	11	12	F	M	2003	2001
Percent of students who think the adults in their neighborhood think it is <i>wrong or very wrong</i> for kids their age to:									
Smoke cigarettes	91	88	83	79	68	84	80	82	78
Drink alcohol	86	84	80	75	67	81	76	79	75
Use marijuana	93	90	85	84	80	88	85	86	84
Percent of students who think their parents think it is <i>wrong or very wrong</i> for them to:									
Smoke cigarettes	95	93	90	88	80	90	89	89	86
Drink alcohol	87	84	79	74	63	80	76	78	75
Use marijuana	96	92	87	86	83	91	87	89	87

■ Disapproval of Alcohol, Tobacco, and Other Drug Use

- **Disapproval of smoking cigarettes is increasing.** In 2003, 72 percent of students thought it was wrong for kids their age to smoke cigarettes, compared to 65 percent in 2001 and 57 percent in 1999.
- **Over half of students think that it is wrong for kids their age to use alcohol and marijuana.** Fifty-one percent of students think it is wrong for kids their age to use alcohol and 62 percent think it is wrong to use marijuana.

DISAPPROVAL OF ATOD USE	GRADE					GENDER		ALL	
	8	9	10	11	12	F	M	2003	2001
Percent of students who think it is <i>wrong or very wrong</i> for kids their age to:									
Smoke cigarettes	83	77	73	68	57	72	71	72	65
Drink alcohol	73	57	48	40	34	50	51	51	48
Use marijuana	81	68	59	54	46	64	60	62	59

■ Perceived Harmfulness of Alcohol, Tobacco, and Other Drug Use

- **More students think there is great risk in smoking cigarettes than in using marijuana.** For example, 66 percent of students think that there is great risk in harming themselves from smoking one or two packs per day compared to 45 percent of students who think that there is great risk in using marijuana regularly.

PERCEIVED HARMFULNESS	GRADE					GENDER		ALL	
	8	9	10	11	12	F	M	2003	2001
Percent of students who think that there is <i>great risk</i> in harming themselves from:									
Smoking one or more packs of cigarettes/day	63	63	68	69	69	70	63	66	66
Drinking one or two alcoholic beverages nearly every day	26	24	23	21	20	27	19	23	27
Using marijuana regularly	62	50	40	37	34	51	40	45	46

■ Perceived Availability of Alcohol, Tobacco, and Other Drugs

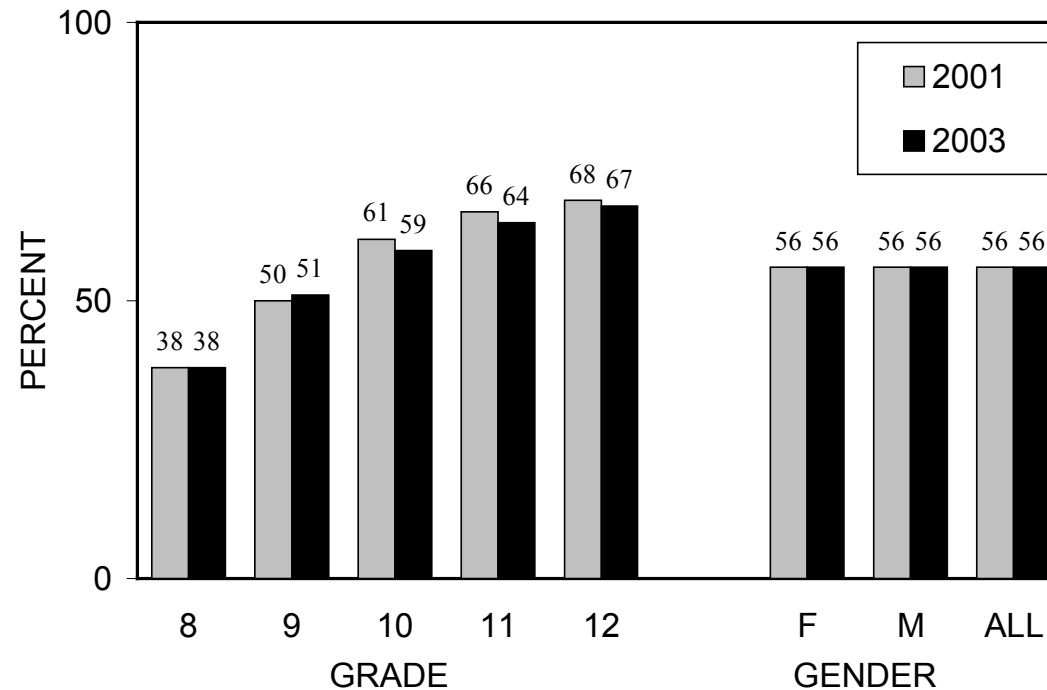
- **Alcohol and cigarettes are easy to get.** Seven out of ten students report that alcohol (70%) and cigarettes (69%) are easy to get.

PERCEIVED AVAILABILITY OF ATOD	GRADE					GENDER		ALL	
	8	9	10	11	12	F	M	2003	2001
Percent of students who report that it is <i>easy or very easy</i> to get:									
Cigarettes	45	62	71	79	89	68	69	69	66
Alcohol	55	66	74	76	82	71	69	70	68
Marijuana	32	55	67	74	79	59	63	61	58

■ Perceived Availability of Alcohol, Tobacco, and Other Drugs

- **Over half of students know an adult who uses illegal drugs.** Overall, 56 percent of students reported knowing an adult who has used an illegal drug during the past year.
- **More older students than younger students know an adult who uses illegal drugs.** In 2003, 67 percent of 12th graders reported knowing an adult who has used an illegal drug during the past year, compared to 38 percent of 8th graders.

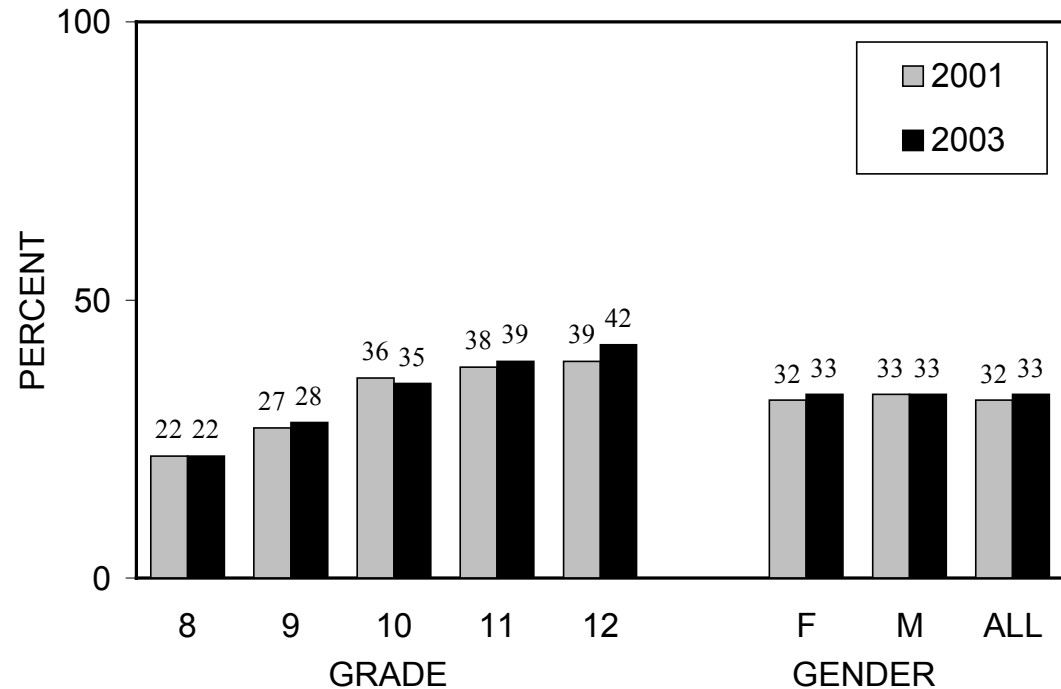
Percent of students who know an adult who has used marijuana, cocaine, or another illegal drugs during the past year.



■ Perceived Availability of Alcohol, Tobacco, and Other Drugs

- **One-third of students know an adult who sells drugs.**
Overall, 33 percent of students reported knowing an adult who has sold drugs during the past year.

Percent of students who know an adult who has sold drugs during the past year.



✓ Sexual Behavior

The questions in this section ask students about sexual behaviors that contribute to HIV infection, other sexually transmitted diseases, and unintended pregnancies. More specifically, the questions measure whether they have had sexual intercourse, the age at which they first had sex, the frequency with which they have sex, with whom they have sex, alcohol and drug use related to sexual intercourse, whether they use contraception, and whether they talked about AIDs or HIV with a family member.

- **Early sexual activity** and multiple sexual partners are associated with an increased risk of unwanted pregnancy and sexually transmitted diseases (STD), including HIV infection,⁴¹ and negative effects on social and psychological development.⁴² Alcohol and drug use may serve as predisposing factors for initiation of sexual activity and unprotected sexual intercourse.⁴³ Of the 12 million new cases of STD per year in the United States, 25 percent are among teens.⁴⁴ STD may result in infertility and facilitation of HIV transmission and may have an adverse effect on pregnancy outcome and maternal and child health.⁴²
- **AIDS** is the ninth leading cause of death for youth aged 15 to 24 in the United States.²² It is estimated that 25 percent of all new cases of HIV each year occur in people aged 13 to 21.⁴⁴ While heterosexual transmission was once uncommon, recent trends indicate that growing numbers of individuals are at risk of contracting HIV in this way. Many people, especially adolescents, do not have the knowledge, awareness, and skills necessary to prevent their becoming infected. Besides abstinence, condom use is currently the most effective means of preventing sexual transmission of HIV.

In Vermont, 435 residents were diagnosed as having AIDS as of December 31, 2002.⁴⁵ Many more Vermonters are at risk of acquiring HIV infection through unprotected sex with multiple partners or intravenous drug use. No area of the state remains unaffected.

- **Teen Pregnancy:** Approximately 900,000 teenage girls in the United States became pregnant in 1997 and a little over half gave birth.⁴⁶ Sixty-six percent of all birth among teenagers are the result of unintended pregnancy.⁴⁷ In 2000, the pregnancy rate in Vermont for girls aged 15-17 was 19.2 pregnancies per 1,000 , which has dropped since 1991 (37.8 pregnancies per 1,000).⁴⁸

✓ Sexual Behavior (cont'd)

- **Gay and Lesbian Youth:** Although many lesbian, gay, and bisexual adolescents lead happy and healthy lives, others face tremendous challenges to growing up physically and mentally healthy. Compared to heterosexual youth, lesbian, gay, and bisexual young people are at higher risk for depression, alcohol and other drug use, suicide, HIV infection, and other sexually transmitted diseases.⁴⁹
-

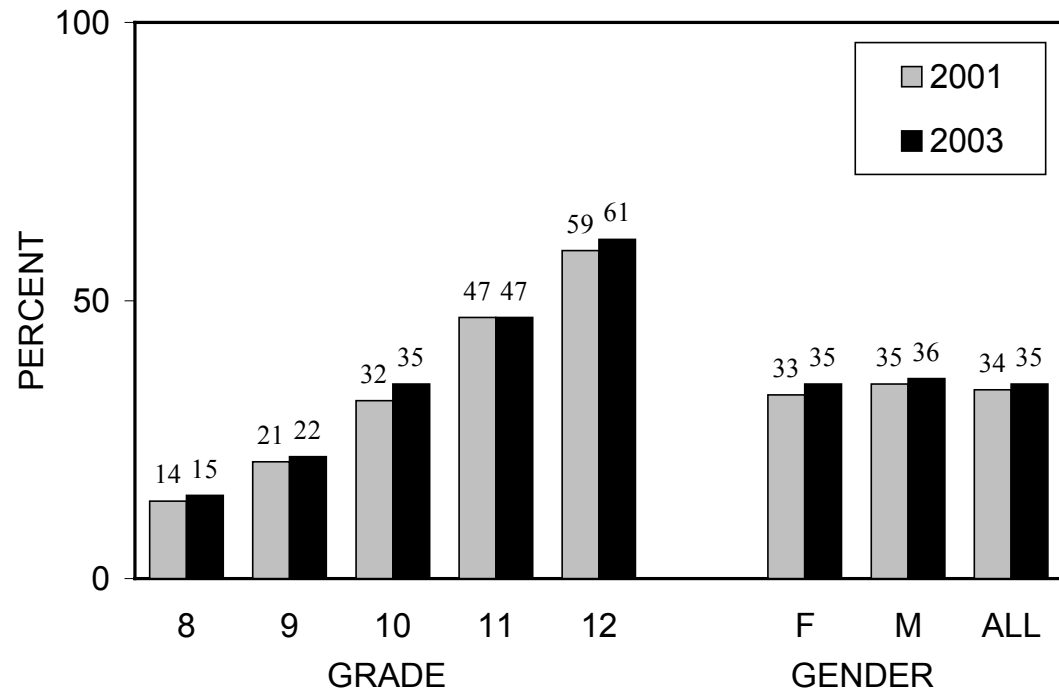
Related *Healthy Vermonters 2010* Goals:

- Increase the percentage of adolescents who abstain from sexual intercourse or use condoms if currently sexually active.
- Reduce HIV infection among adolescents and adults.
- Further reduce the percentage of people ages 15-24 with Chlamydia trachomatis infection.

■ Sexual Behavior

- **Over one-third of students have had sex.** In 2003, 35 percent of students reported having had sexual intercourse.

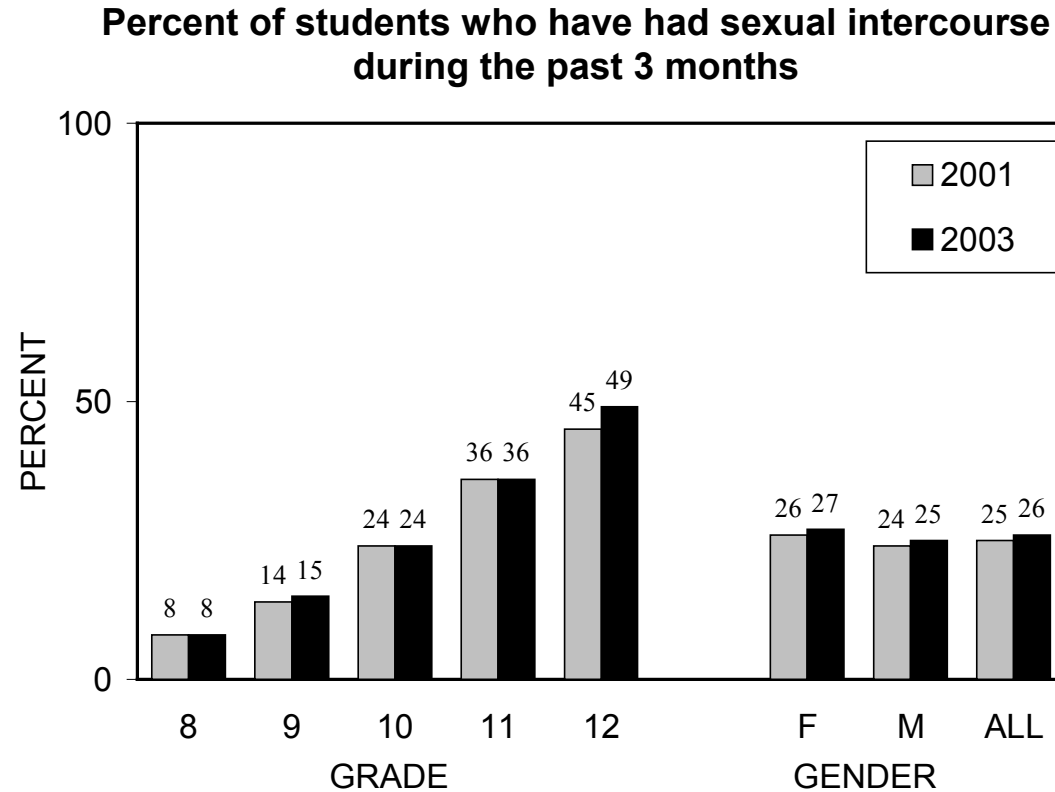
Percent of students who have ever had sexual intercourse



■ Sexual Behavior

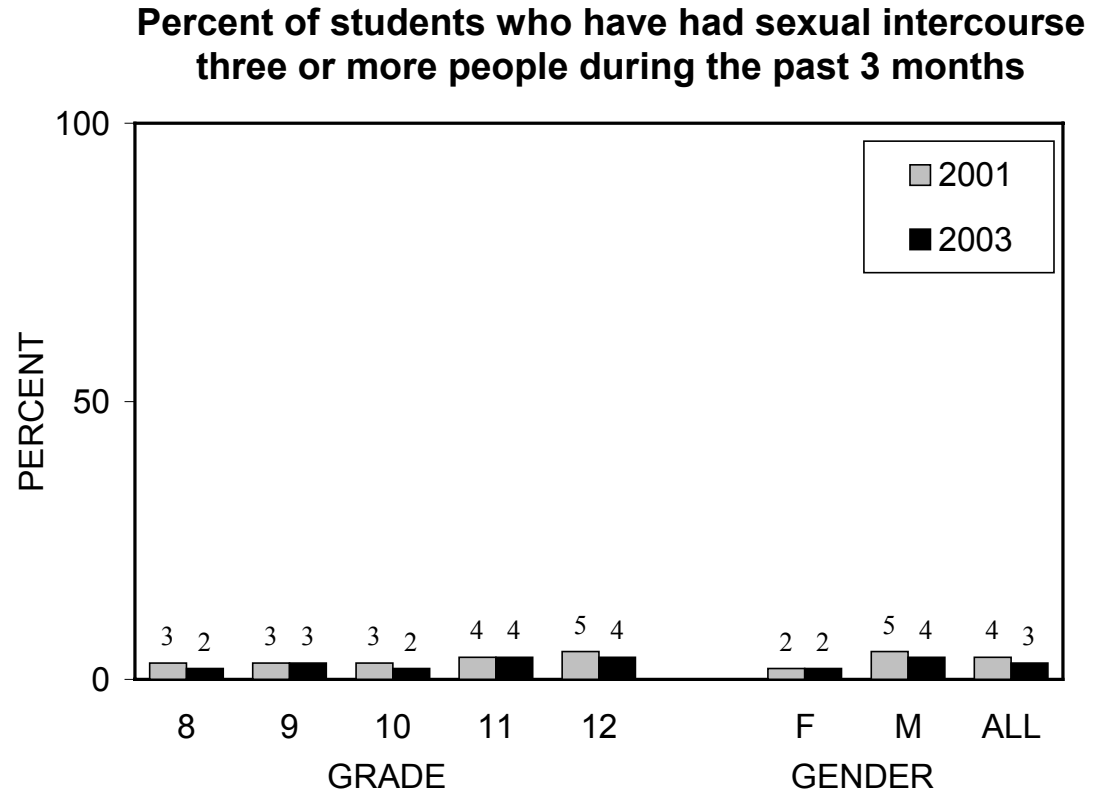
- **Approximately one out of four Vermont students are sexually active.** Overall, 26 percent of students reported having had sex during the past 3 months.

- **More older students than younger students are sexually active.** In 2003, 49 percent of 12th graders had sex during the past 3 months, compared to 8 percent of 8th graders.



■ Sexual Behavior

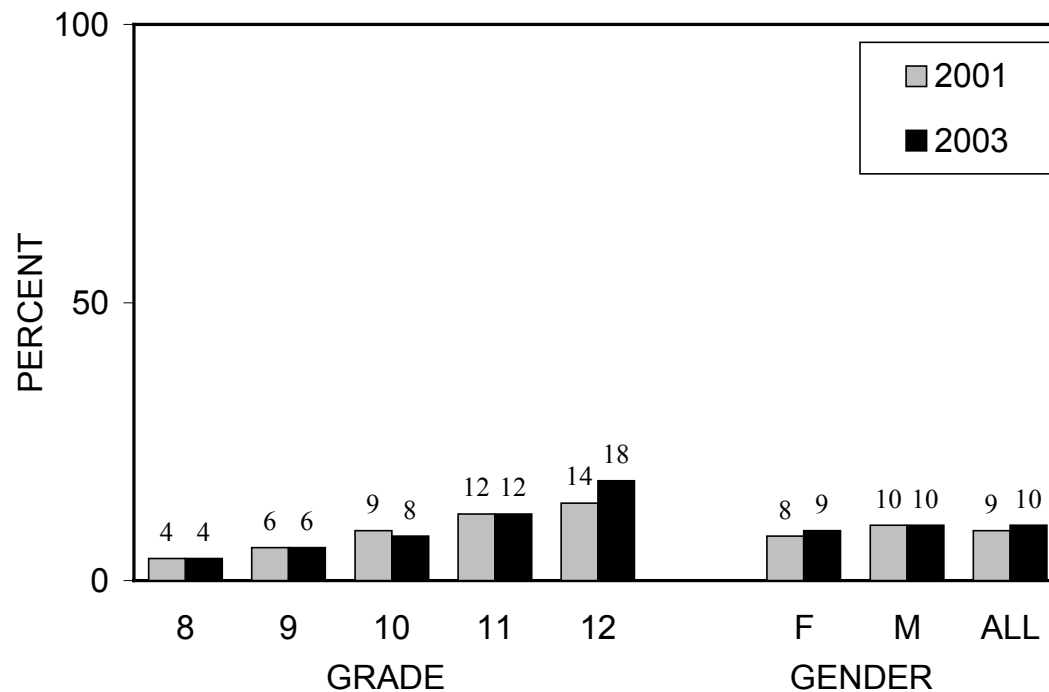
- Overall, 3 percent of Vermont students have had sexual intercourse with three or more people during the past 3 months.



■ Sexual Behavior

- Overall, 10 percent of students have had sexual intercourse with four or more people in their lifetime.

Percent of students who have had sexual intercourse with four or more people during their lifetime



■ Sexual Behavior

- **Males have sex earlier than females.** Males were nearly two times as likely as females to have had sex prior to age 13 (7% vs 4%).
- **Over one-quarter (26%) of sexually active students use alcohol or drugs prior to sex.**
- **Six out of 10 sexually active students use condoms.** Overall, 60 percent of sexually active students used a condom during their most recent sexual experience, similar to 2001 (63%).

SEXUAL BEHAVIOR	GRADE					GENDER		ALL	
	8	9	10	11	12	F	M	2003	2001
Percent of students who:									
First had sexual intercourse before age 13	8	6	4	4	5	4	7	6	6
Used drugs or alcohol before their most recent sexual experience*	32	28	27	25	24	22	31	26	27
Used a condom during their most recent sexual experience*	71	72	67	60	52	55	66	60	63
Have been pregnant or have impregnated someone	1	2	2	3	4	3	3	3	3

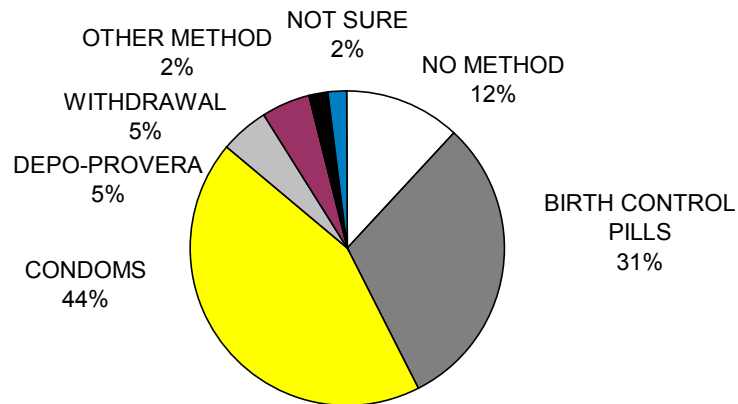
*Includes only students who said that they have had sexual intercourse

■ Sexual Behavior

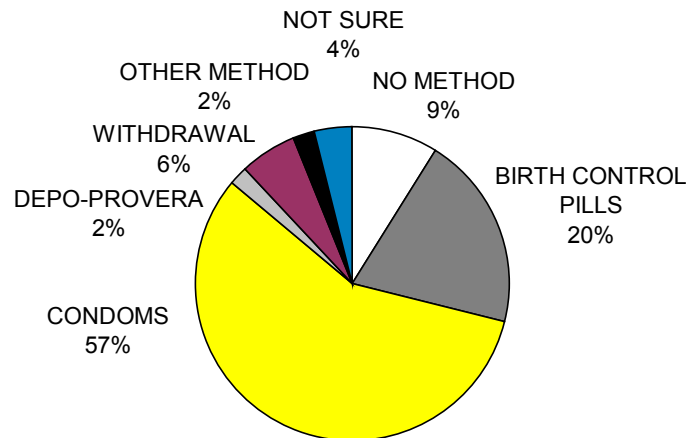
- **Condoms are the most commonly used contraceptive.** Overall, 51 percent of students used condoms to prevent pregnancy the last time they had sex.
- **Many students do not use any method to prevent pregnancy.** Overall, 10 percent of students did not use any method to prevent pregnancy the last time they had sex, and 3 percent were not sure what method was used.

**What method did you or your partner use to prevent pregnancy the last time you had sexual intercourse?
(only among those students who have ever had sex)**

FEMALES



MALES

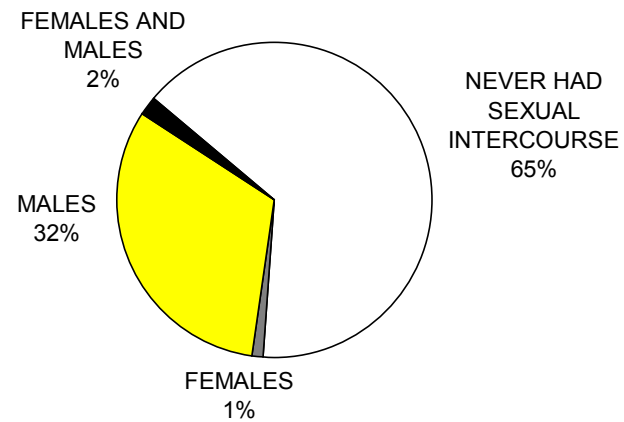


■ Sexual Behavior

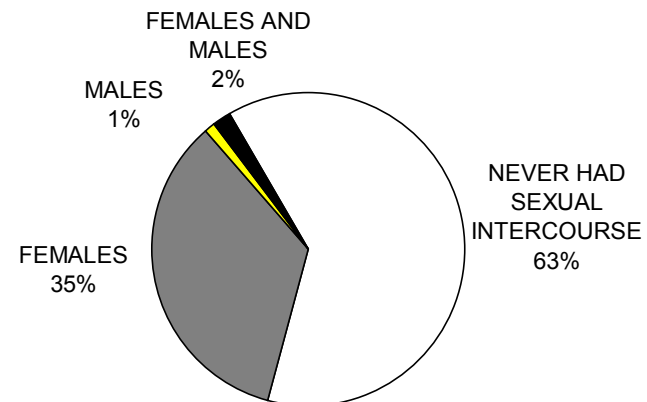
- Overall, 3 percent of students have engaged in same sex sexual intercourse.

The persons with whom you have had sexual intercourse are:

FEMALES



MALES



■ Sexual Behavior

- **More females than males talk with their parents about HIV infection.** Fifty-five percent of female students, compared to 48 percent of male students have talked with their parents about HIV or AIDS.
- **Overall, 81 percent of students report that they have been given enough information at school to protect themselves from HIV/AIDS and other sexually transmitted infections (STIs).**

HIV EDUCATION	GRADE					GENDER		ALL	
	8	9	10	11	12	F	M	2003	2001
Percent of students who:									
Have talked with parents or other adults in their family about HIV/AIDS	48	50	52	54	55	55	48	52	54
Report being given enough information at school about HIV/AIDS and STIs to protect themselves	69	79	86	87	87	81	82	81	NA

✓ Body Weight and Nutrition

This section asks students their height and weight, how they feel about their weight and what, if anything, they are doing to control their weight. The questions also inquire about how often students eat fruits and vegetables and drink milk.

- The prevalence of **overweight** among adolescents more than doubled from 5 percent in the late 1970s to 11 percent between 1988 and 1994 the United States.⁵⁰ Overweight and obesity acquired during childhood or adolescence may persist into adulthood, increasing later risk for chronic conditions such as coronary heart disease, high blood pressure, some types of cancer, gall bladder disease, and osteoarthritis of the weight-bearing joints.⁵¹ Children and adolescents often experience social and psychological stress related to obesity.⁵²

Obesity in adolescence is associated with hyperlipidemia, hypertension, abnormal glucose tolerance, and adverse psychological and social consequences.⁵³ Overemphasis on thinness during adolescence may contribute to eating disorders such as anorexia nervosa and bulimia.^{54,55} Studies have shown high rates of body dissatisfaction and dieting among adolescent females, with many engaging in unhealthy weight control behaviors, such as fasting and self-induced vomiting.⁵⁶⁻⁵⁹

- **Nutrition:** Fruits and vegetables are good sources of complex carbohydrates, vitamins, minerals, and other substances that are important for good health. Dietary patterns with higher intakes of fruits and vegetables are associated with a variety of health benefits, including a decreased risk for some types of cancer.^{51, 60, 61} Milk is by far the largest single source of calcium for adolescents⁶², but it is estimated that about half of adolescent of males and more than 80 percent of adolescent females do not meet dietary recommendations for calcium intake.⁶³ Calcium is essential for the formation and maintenance of bones and teeth,⁵¹ low calcium intake during the first two to three decades of life is an important risk factor in the development of osteoporosis.⁶⁴

✓ **Body Weight and Nutrition**

Related *Healthy Vermonters 2010* Goals:

- Reduce the percentage of youth who are obese or overweight.
- Increase the percentage of people who eat at least two daily servings of fruit.
- Increase the percentage of people who eat at least three daily servings of vegetables.

■ Body Weight

- **Slightly more younger students than older students are at risk for being overweight.** In 2003, 18 percent of 8th graders were between the 85th and 95th body mass index percentile, compared to 12 percent of 12th graders.
- **Overall, 11 percent of students are overweight.**

BODY WEIGHT	GRADE					GENDER		ALL	
	8	9	10	11	12	F	M	2003	2001
Percent of students who are at risk for being overweight (85th Body Mass Index Percentile*)	18	16	15	13	12	14	16	15	13
Percent of students who are overweight (95th Body Mass Index Percentile*)	13	11	12	9	11	8	15	11	10

*Body mass index is calculated as weight in kilograms divided by the square of the height in meters.

■ Body Weight

- **More females than males think they are overweight and are trying to lose weight.** In 2003, 37 percent of female students described themselves as overweight, compared to 26 percent of male students. The difference between females and males was similar in 2001(36% vs 24%). In addition, 60 percent of female students are trying to lose weight, compared to only 26 percent of male students. This difference was similar in 2001 (58% vs 26%).

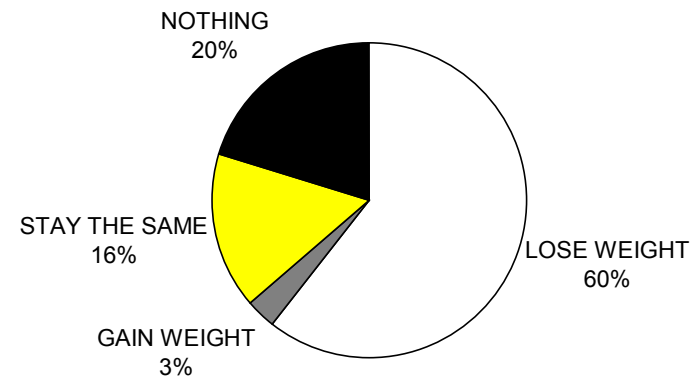
BODY WEIGHT DESCRIPTION	GRADE					GENDER		ALL	
	8	9	10	11	12	F	M	2003	2001
Percent of students who describe themselves as:									
Underweight	16	15	13	14	12	11	17	14	15
About the right weight	55	55	54	55	55	52	57	55	55
Overweight	30	30	33	31	33	37	26	31	30
Percent of students who are:									
Trying to lose weight	42	43	44	42	43	60	26	43	41
Trying to gain weight	9	13	12	14	12	3	20	12	12
Trying to stay the same	20	16	18	18	17	16	20	18	18
Doing nothing about their weight	29	27	26	27	28	20	34	27	28

■ Body Weight

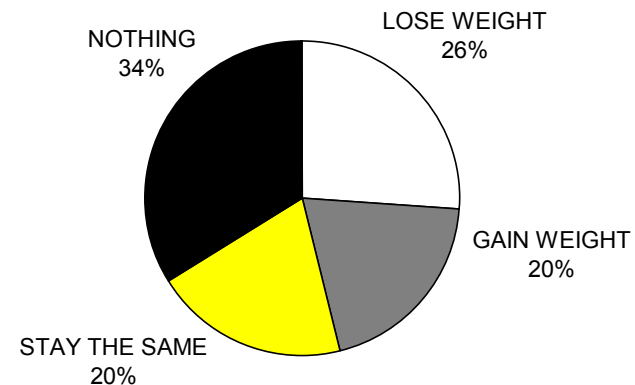
- **More males than females are trying to gain weight.** Male students were almost seven times more likely than female students to be trying to gain weight (20% vs 3%). Similarly, 21 percent of male students in 2001 were trying to gain weight, compared to 3 percent of female students.

What are students trying to do about their weight?

FEMALES



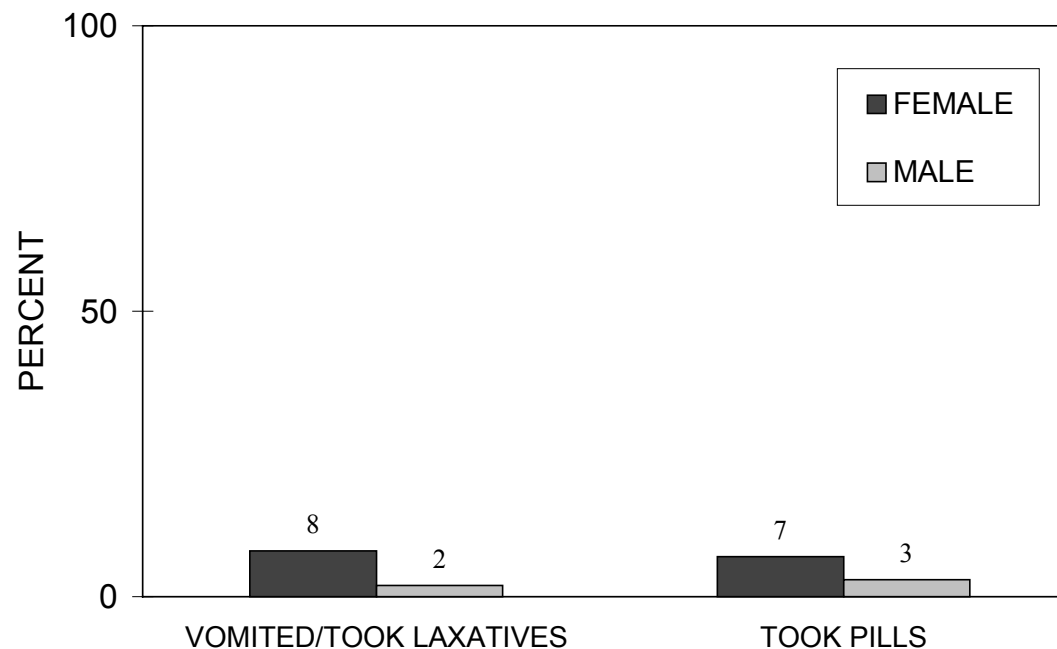
MALES



■ Body Weight

- **More females than males used unhealthy methods to try to control their weight.** Female students were more likely than male students to have vomited or taken laxatives (8% vs 2%) and taken diet pills (7% vs 3%) to try and control their weight.

What females and males did during the past 30 days to control their weight



■ Nutrition

- Overall, 40 percent of students eat two or more servings of fruit or fruit juice daily.
- Overall, 16 percent of students eat three or more servings of vegetables daily.
- Overall, 27 percent of students eat five or more servings of fruits and vegetables daily.
- Over one-fourth (26%) of students drink 3 or more glasses of milk daily. In 2003, 33 percent of male students drank three or more glasses of milk per day, compared to 19 percent of female students.

FRUITS, VEGETABLES & MILK CONSUMPTION									
	GRADE					GENDER		ALL	
	8	9	10	11	12	F	M	2003	2001
Percent of students who:									
Eat 2 or more servings of fruit or fruit juice per day	39	39	42	41	39	38	41	40	41
Eat 3 or more servings of vegetables per day	18	15	16	16	15	16	16	16	16
Eat 5 or more servings of fruits and vegetables per day	29	26	29	27	25	26	28	27	27
Drink 1 or more glasses of milk per day	63	62	62	60	58	54	68	61	62
Drink 3 or more glasses of milk per day	30	30	26	24	21	19	33	26	27

✓ Physical Activity

This section asks students how often they engage in vigorous and moderate physical activities and physical education classes. Students are also asked how often they watch television and play on the computer for fun or play video games.

- **Regular physical activity** helps build and maintain healthy bones and muscles, control weight, build lean muscle, and reduce fat; reduces feelings of depression and anxiety; and promotes psychological well-being.⁶⁵ In the long term, regular physical activity decreases the risk of dying prematurely, dying of heart disease, and developing diabetes, colon cancer, and high blood pressure.⁶⁵
 - **School physical education classes:** Major decreases in vigorous physical activity occur during grades 9 through 12, particularly for girls; by 11th grade, more than half of female students in the US are not participating regularly in vigorous physical activity.³⁰ School physical education classes can increase adolescent participation in moderate to vigorous physical activity^{66, 67} and help adolescents develop the knowledge, attitudes, and skills they need to engage in lifelong physical activity.⁶⁸ Across the US, daily participation in physical education class dropped from 42 percent in 1991 to 25 percent in 1995 and increased to 32 percent in 2001 but still remains far below the 1991 level.⁶⁹
 - **Television viewing** is the principal sedentary leisure time behavior in the US. Studies have shown that television viewing in young people is related to obesity⁷⁰ and violent or aggressive behavior.^{71, 72} Using the computer for fun and playing video games have become increasingly common sedentary leisure time activities among young people as well.
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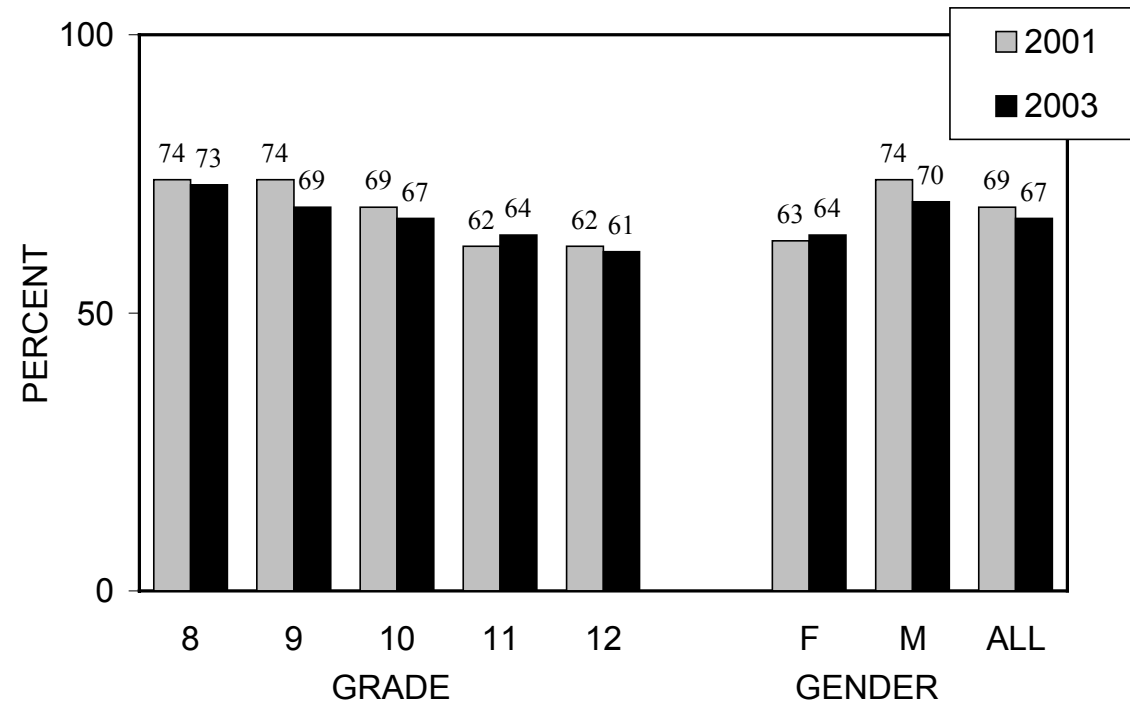
Related *Healthy Vermonters 2010* Goals:

- Increase the percentage of middle and junior high students that require daily physical education for all students.

■ Physical Activity

- **Almost, seven out of 10 students participated in aerobic exercise.** Overall, 67 percent of students participated in three or more days per week of aerobic exercise, compared to 64 percent in 1999 and 62 percent in 1997.
- **Fewer females participate in aerobic exercise often than males.** Less than two-thirds (64%) of female students exercised aerobically three or more days per week, compared 70 percent of male students.

Percent of students who participated in aerobic exercise* three or more days during the past 7 days

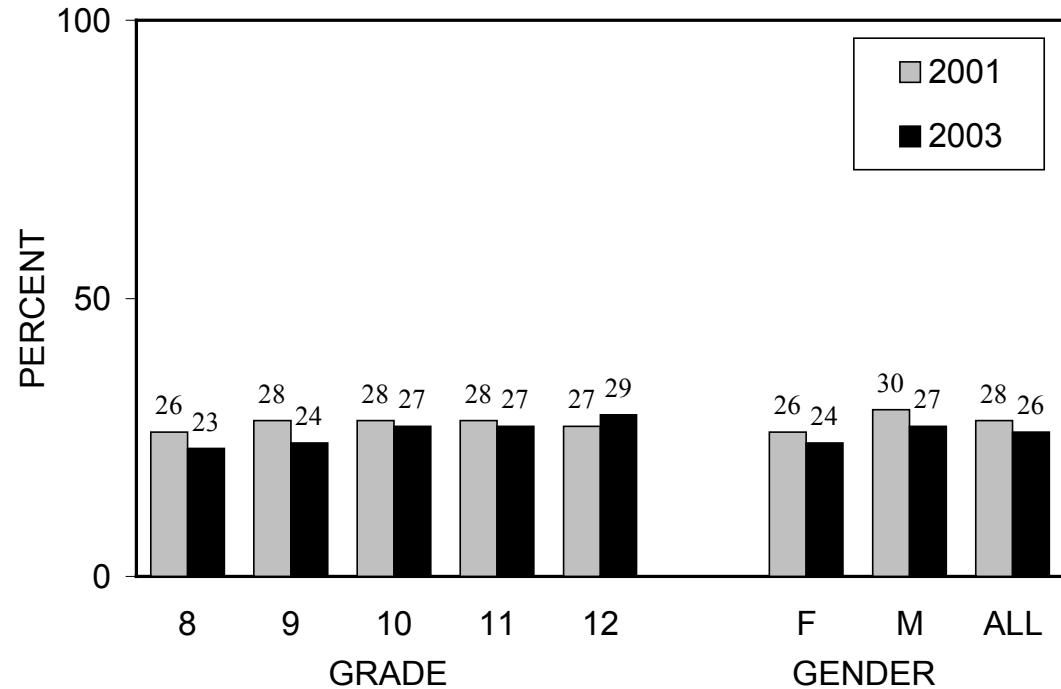


*Activities that caused sweating and hard breathing for at least 20 minutes.

■ Physical Activity

- Overall, 26 percent of students exercised moderately five or more days per week.

Percent of students who exercised moderately* five or more days during the past 7 days



* Activities that did not cause sweating and hard breathing, such as bicycling, skating, and pushing a lawn mower for at least 30 minutes.

■ Physical Activity

- More PE in lower grades.**
 Eighty-seven percent of 8th graders, compared to only 27 percent of 12th graders, participated in at least one physical education class per week. The difference between 8th and 12th graders was similar in 2001 (94% vs 26%).
- Overall, 87 percent of students enrolled in PE class exercise more than 20 minutes during class.**

PHYSICAL EDUCATION	GRADE					GENDER		ALL	
	8	9	10	11	12	F	M	2003	2001
Percent of students who participated in:									
Physical education classes at least once during the past 7 days	87	75	52	33	27	53	58	56	58
Physical education classes five days during the past 7 days	24	21	16	11	9	15	18	17	28
More than 20 minutes of exercise or sports during an average PE class	83	86	90	93	94	86	88	87	84

■ Physical Activity

- Over one-third (35%) of students spend three or more hours a school day watching TV, playing video games, or playing on the computer for fun. More males (41%) than females (28%) spend time watching TV or playing on computer for fun.
- Overall, 9 percent of students spend five or more hours per school day watching TV or playing video games/computer.

TV AND COMPUTER GAMES									
	GRADE					GENDER		ALL	
	8	9	10	11	12	F	M	2003	2001
Percent of students who:									
Spend 3 or more hours per school day watching TV or playing on the computer	37	37	38	29	32	28	41	35	32
Spend 5 or more hours per school day watching TV or playing on the computer	11	10	10	7	7	6	12	9	8

*Questions regarding time spent watching TV or playing on computer or playing video games were modified in 2001; therefore, comparisons with previous data should be made with caution.

✓ Measures of Youth Assets

Healthy development depends not only on avoiding harmful behavior, but on strengthening the sources of positive influence in our lives. This section asks students about the grades they receive in school, how often their parents talk to them about school, how often they are involved in clubs or organizations, how often they volunteer their time helping their community, their perception about students' role in deciding what happens in school, and their perception of how they are valued by their communities.

- **Grades in School:** Above-average school performance is viewed as one of many developmental assets (i.e., factors promoting positive development) for youth. Studies have shown that students who get higher grades in school are less likely to use cigarettes, alcohol, or marijuana, and are more likely to postpone sexual intercourse.⁷³ In 2001, 72 percent of 8-12th graders in Vermont reported that their school performance was above average.⁷⁴
- **Parents Involvement in School:** One of the strongest predictors of students' success in school is the extent to which their parents stay involved with their schoolwork—asking about academic progress, attending teacher conferences, and so on. In addition, a national study of adolescent health found that youth who reported a “connectedness” to their parents/family and school were the least likely to engage in risky behaviors. Parental expectations regarding school achievement were also associated with lower levels of risk behaviors.⁷³ Only 27 percent of 6th to 12th grade students surveyed across the United States reported that their parents are involved in helping them succeed in school.⁷⁵
- **Participation in youth programs and service to community:** Research shows that involvement in constructive, supervised extra-curricular activities is associated with reduced likelihood of involvement in risky behaviors such as school failure, drug use, and crime.⁷⁶ In addition, evidence is emerging that students who participate in such activities are also more likely to engage in other “thriving” behaviors.⁷⁷
- **Youth as resources:** Youth are not simply objects of adult efforts to modify their behaviors. Rather, if given the opportunities, they can make significant contributions to their families, schools, and communities. Adolescents, especially, need to exercise decision-making power in as many domains as is practical, so that they can develop into competent adults. Schools are a natural setting for youth to share in decisions that affect their lives.

✓ Measures of Youth Assets

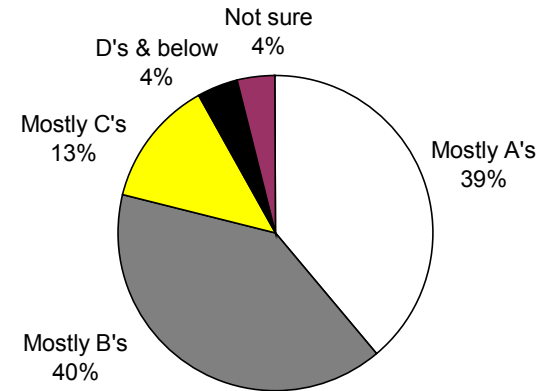
- **Youth valued by their community:** It stands to reason that young people respond positively when they perceive they are valued by others in their community. In 2001, 49 percent of 8-12th graders in Vermont reported they felt adults in their community valued young people.⁷⁴

■ Measures of Youth Assets

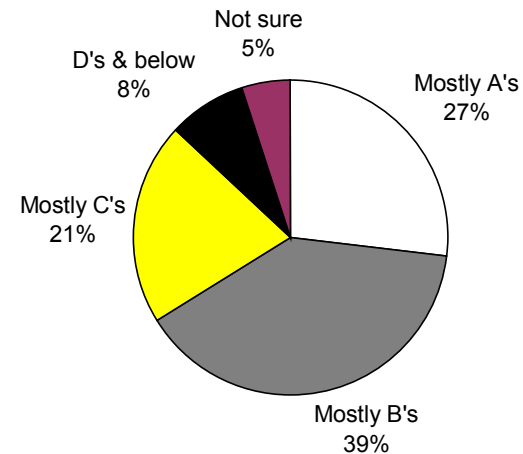
- **The majority of students receive above average grades.** Overall, 73 percent of students reported receiving B's and above.
- **Females receive higher grades than males.** Thirty-nine percent of female students reported receiving mostly A's, compared to 27 percent of male students.

FEMALES

Students' grades



MALES

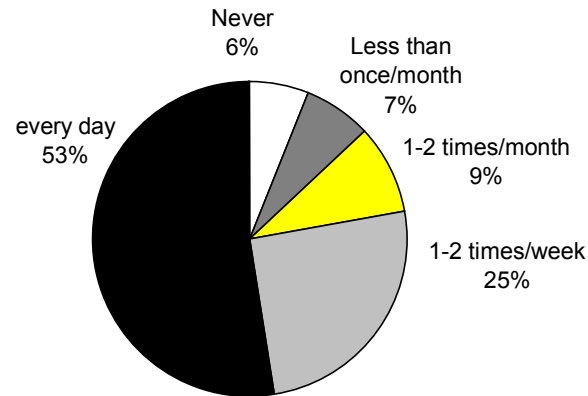


■ Measures of Youth Assets

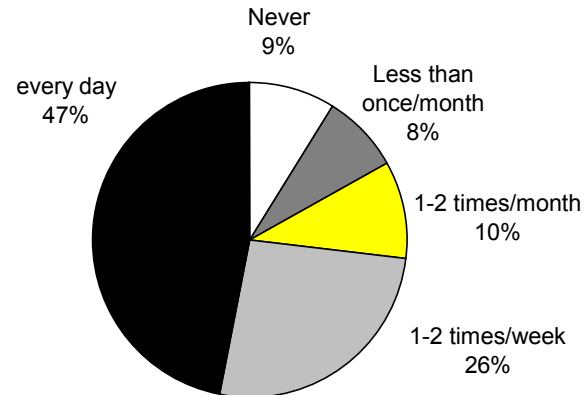
- **Three-fourths (75%) of students' parents talk with them about school weekly or more often.** Overall, 49 percent of students reported that their parents talked with them daily about school and 27 percent talked with them once or twice a week.
- **Some parents rarely or never talk with their children about school.** Overall, 8 percent of students reported that their parents never talk with them about school and 7 percent reported that their parents talk with them about school less than once a month.

How often does one of your parents talk with you about what you are doing in school?

FEMALES



MALES



■ Measures of Youth Assets

- **Almost three out of 10 (28%) participate in clubs outside of school.** No difference was seen among grades, but more females than males participated in clubs or organizations outside of school (34% vs 24%).

PARTICIPATION IN YOUTH PROGRAMS	GRADE					GENDER		ALL	
	8	9	10	11	12	F	M	2003	2001
Percent of students who:									
Spend 1 or more hours per week in clubs/organizations outside of school (not including sports)	30	26	30	30	28	34	24	28	30
Spend 3 or more hours per week in clubs/organizations outside of school (not including sports)	12	11	12	13	12	13	11	12	13

■ Measures of Youth Assets

- **Almost half (45%) of Vermont students volunteer their time.** No difference was seen across grades, but more females than males participated in clubs or organizations outside of school (48% vs 43%).

SERVICE TO COMMUNITY	GRADE					GENDER		ALL	
	8	9	10	11	12	F	M	2003	2001
Percent of students who:									
Spend 1 or more hours per week volunteering their time to make their community a better place to live	45	42	45	44	49	48	43	45	48
Spend 3 or more hours per week volunteering their time to help others make their community a better place to live	12	12	14	13	17	14	12	13	15

■ Measures of Youth Assets

- **Less than half (46%) of students report that students help decide what goes on at their school.** No significant difference was seen across grades or sex.
- **Less than half (42%) of students feel valued by their community.** No significant difference was seen across grades or sex.

YOUTH VALUED BY THEIR SCHOOL AND COMMUNITY									
	GRADE					GENDER		ALL	
	8	9	10	11	12	F	M	2003	2001
Percent of students who agree with the following statements:									
Students help decide what goes on in my school	48	51	43	43	42	44	47	46	47
In my community, I feel like I matter to people	45	41	40	41	42	40	44	42	43

References

1. Cotton N.U., Resnick, J., Browne, D.C. Martin, S.L., McCarraher, D.R., Woods, J. Aggression and fighting behavior among African-American adolescents: Individual and family factors. American Journal of Public Health 84:618-622, 1994.
2. Luckenbill, D.F. Criminal homicide as a situated transaction. Social Problems 25:176-186, 1977.
3. Kaufman, P., Chen, X., Choy, S.P., Peter, K., Ruddy, S.A., Miller, A.K., Fleury, J.K., Chandler, K.A., Planty, M.G., Rand, M.R. Indicators of School Crime and Safety: 2001. U.S. Departments of Education and Justice. NCES 2002-113/NCJ-190075. Washington, DC:2001.
4. Avery-Leaf, S., Cascardi, M., O'Leary, K.D., Cano, A. Efficacy of a dating violence prevention program on attitudes justifying aggression. Journal of Adolescent Health 21:11-17, 1997.
5. Davis, T.C., Peck, G.Q., Storment, J.M. Acquaintance rape and the high school student. Journal of Adolescent Health 14:222-224, 1993.
6. Hartman, C.R., Burgess, A.W. Treatment of victims of rape trauma. In J.P. Wilson & B. Raphael (Eds.), International handbook of traumatic stress syndromes (pp. 507-516). New York: Plenum Press, 1993.
7. Erickson, P.I., Rapkin, A.J. Unwanted sexual experience among middle and high school youth. Journal of Adolescent Health 12:319-325, 1991.
8. Golding, J.M. Sexual assault history and physical health in randomly selected Los Angeles women. Health Psychology 13:130-138, 1994.
9. Anderson, R.N., Deaths: Leading Causes for 1999. National Vital Statistics Reports 49 : 1-88, 2001.
10. Sloan, J.H., et. al.: Handgun regulations, crime, assaults, and homicide: A tale of two cities. New England Journal of Medicine 319:1256-1262,1988.
11. Loftin, C., McDowall, D., Wiersema, B., and Cottrey, T.J. Effects of restrictive licensing of handguns on homicide and suicide in the District of Columbia. New England Journal of Medicine 325:1615-1620, 1991.
12. National Center for Injury Prevention and Control.. The Injury Fact Book 2001-2002. Atlanta, GA: Centers for Disease Control and Prevention, 2001.
13. National Highway Traffic Safety Administration. Benefits of safety belts and motorcycle helmets: report to Congress, February 1996. Washington, DC: U.S. Department of Transportation, 1996.
14. Vermont Behavior Risk Factor Surveillance System 2000. Vermont Department of Health. Center for Public Health Statistics, Burlington, VT.
15. Centers for Disease Control and Prevention. Injury-control recommendations: Bicycle helmets. Morbidity and Mortality Weekly Report 44:1-17, 1995.
16. Sosin, D.M., Sacks, J.J., and Webb, K.W. Pediatric head injuries and deaths from bicycling in the United States. Pediatrics 98:868-870, 1996.

17. Rivara, F.P. Traumatic deaths of children in the United States: currently available prevention strategies. Pediatrics 75: 456-62, 1985
18. National Center for Health Statistics. Report of Final Mortality Statistics, 1995. Monthly Vital Statistics Report 45(11, supplement 2), 1997.
19. Vermont Department of Health. Vital Statistics, 2001.
20. Centers for Disease Control and Prevention. Alcohol involvement in fatal motor-vehicle crashes – United States, 1997-1998. Morbidity and Mortality Weekly Report 48(47):1086-1087, 1999.
21. National Highway Traffic Safety Administration. The Economic Cost to Society of Motor Vehicle Accidents. Technical Report DOT HS 809-195. Washington, DC: U.S. Department of Transportation, 1987.
22. Centers for Disease Control and Prevention. **WISQARS™** (Web-based Injury Statistics Query and Reporting System). National Center for Injury Prevention and Control Home Page.
23. U.S. Department of Health and Human Services. Prevention '89/'90: Federal Programs and Progress. Washington, D.C.: U.S. Government Printing Office, 1990.
24. The Robert Wood Johnson Foundation. Substance Abuse: The Nation's Number One Health Problem. Institute for Health Policy, Brandeis University, 1993.
25. National Highway Traffic Safety Administration. 1998 Youth fatal crash and alcohol facts. Washington, DC: US Department of Transportation, 1998.
26. Public Health Service. Healthy People 2000: National Health Promotion and Disease Prevention Objectives--Full Report, With Commentary. DHHS Pub. No. (PHS)91-50212. Washington, DC: U.S. Department of Health and Human Services, 1991.
27. U.S. Department of Health and Human Services. Prevention Tobacco Use Among Young People: A Report of the Surgeon General. Washington, DC: U.S. Government Printing Office, 1994.
28. Centers for Disease Control. Smoking-attributable mortality and years of potential life lost--United States, 1988. Morbidity and Mortality Weekly Report 40:62-63, 69-71, 1991.
29. Johnston, L.D., O'Malley, P.M., and Bachman, J.G. National Trends in Drug Use and Related Factors Among American High School Students and Young Adults, 1975-1986. DHHS Pub. No. (ADM)87-1535. Rockville, MD: National Institute on Drug Abuse, 1987.
30. Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance - United States, 2001. Morbidity and Mortality Weekly Report 51:SS-4, 2002.
31. Centers for Disease Control and Prevention. Cigar smoking among teenagers – United States, Massachusetts, and New York, 1996. Morbidity and Mortality Weekly Report 46:433-440, 1997.

32. US Department of Health and Human Services. Spit tobacco and youth. US Department of Health and Human Services, Office of Inspector General. Publication No. OEI 06-9200500, 1992.
33. Centers for Disease Control and Prevention. Oral Cancer: Deadly to Ignore. Fact sheet on oral cancer. <http://www.cdc.gov/OralHealth/factsheets/oc-facts.html>.
34. Do It Now Foundation. FastFacts-Marijuana, 1995.
35. Office of Applied Studies, Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set (TEDS), April 2002.
36. Do It Now Foundation. FastFacts-Inhalants, 1995.
37. Substance Abuse and Mental Health Services Administration. Summary of findings from the 2000 National Household Survey on Drug Abuse (NHSDA) Series: H-13, DHHS Publication NO. SMA 01-3549. Rockville, MD, 2001.
38. Blanken, A.J. Measuring use of alcohol and other drugs among adolescents. Public Health Reports 108(1):25-30, 1993.
39. Johnston, L., O'Malley, P., and Bachman, J. National Survey Results on Drug Use From the Monitoring the Future Study, 1975-1995, Volume I: Secondary School Students. Rockville, MD: National Institute of Drug Abuse, 1996.
40. Developmental Research Programs. Communities That Care Planning Kit. Seattle, Washington, 1996.
41. Abma, J.C., Sonenstein, F.L. Sexual activity and contraceptive practices among teenagers in the United States, 1998 and 1995. National Center for Health Statistics. Vital Health Statistics Series 23:1-26, 2001.
42. Morris, L., Warren, C.W., and Aral, S.O. Measuring adolescent sexual behaviors and related health outcomes. Public Health Reports 108(1):31-36, 1993.
43. Hofferth, S.L. and Hayes, C.D. (eds.). Risking the Future: Adolescent Sexuality, Pregnancy, and Childbearing. Panel on Adolescent Pregnancy and Childbearing, Committee on Child Development Research and Public Policy, Commission on Behavioral and Social Sciences and Education, National Research Council. Washington, DC: National Academy Press, 1987.
44. The Annie E. Casey Foundation. When Teens Have Sex: Issues and Trends, 1998.
45. Vermont Department of Health. Vermont Quarterly HIV/AIDS Report, January 2003.
46. Ventura, S.J., Mosher, W.D., Curtain, S.A., and Abma, J.C. Trends in pregnancy rates for the United States, 1976-97: An update. National Vital Statistics Reports 49(4):1-12, 2001.
47. Martin, J.A., Park, M.M., and Sutton, P.D. Births: Preliminary data for 2001. National Vital Statistics Reports 50(10):1-20, 2002.

48. Vermont Agency of Human Services. The Social Well-Being of Vermonters, 2002.
49. The Center for Population Options. Lesbian, Gay and Bisexual Youth: At Risk and Underserved, 1992.
50. Troiano, R.P. and Flegal, K.M. Overweight children and adolescents: description, epidemiology, and demographics. Pediatrics 101:497-504, 1998.
51. Public Health Service. The Surgeon General's Report on Nutrition and Health. DHHS Pub. No. (PHS)88-50210. Washington, DC: U.S. Department of Health and Human Services, 1988.
52. Rotatori, A.F., and Fox, R.A. Obesity in Children and Youth: Measurement, Characteristics, Causes, and Treatment. Springfield, IL: Charles C. Thomas, Publisher, 1989.
53. Dietz, W.H. Health consequences of obesity in youth: Childhood predictors of adult disease. Pediatrics 101:518-525, 1998.
54. Herzog, D. and Copeland, P. Eating disorders. New England Journal of Medicine 313:295-303, 1985.
55. Mitchell, J. and Eckert, E. Scope and significance of eating disorders. Journal of Consulting Clinical Psychology 55:628-634, 1987.
56. French, S.A., Jeffrey, R.W. Consequences of obesity in youth: childhood predictors of adult disease. Pediatrics 101:518-525, 1998.
57. Serdula, M.K., Collins, M.E., Williamson, D.F., Anda, R.F., Pamuk, E.R., Byers, T.E. Weight control practices of US adolescents. Annals of Behavioral Medicine 119: 667-671, 1993.
58. Story, M., French, S.A., Resnick, M.D., Blum, R.W. Ethnic and socioeconomic status differences in dieting behaviors and body image perceptions in adolescents. International Journal of Eating Disorders 18:173-179, 1995.
59. Whitaker, A., Davies, M., Shaffer, D., Johnson, J., Abrams, S., Walsh, B.T., Kalikow, K. The struggle to be thin: a survey of anorexic and bulimic symptoms in a non-referred adolescent population. Psychological Medicine 19:143-163, 1989.
60. Serdula, M.K., Byers, T., Mkdad, A.H., Simoes, E., Mendlein, J.M., Coates, R.J. The association between fruit and vegetable intake and chronic disease risk factors. Epidemiology 7:161-165, 1995.
61. U.S. Department of Health and Human Services, Food and Drug Administration. Notice of final rule: food labeling: health claims and label statements: dietary fiber and cancer. Federal Register, January 5, 1993: 2537-2552.
62. U.S. Department of Agriculture, Agricultural Research Service. Unpublished data from the 1989-91 Continuing Survey of Food Intakes by Individuals. February 1998.
63. National Center for Health Statistics, Centers for Disease Control and Prevention. Unpublished data from the 1988-94 National Health and Nutrition Examination Survey. May 1998.

64. NIH Consensus Development on Optimal Calcium Intake. Optimal calcium intake. Journal of the American Medical Association 272: 1942-1948, 1994.
65. US Department of Health and Human Services. Physical Activity and Health: A Report of the Surgeon General. Atlanta: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, 1996.
66. McKenzie, K.L. Nader, P.R., Strikmiller, P.K., Yang, M., Stone, E.J., Perry, C.L., Taylor, W.C., Epping, J.M., Feldman, H.A., Luepker, R.V., and Kelder, S.H. School physical education: Effect of the Child and Adolescent Trial for Cardiovascular Health. Preventive Medicine 25:423-431, 1996.
67. Sallis, J.F., McKenzie, T.L., Alcaraz, J.E., Kolody, B., Faucette, N., and Hovell, M.F. The effects of a 2 year physical education program (SPARK) on physical activity and fitness in elementary school students. American Journal of Public Health 87:1328-1334, 1997.
68. Center for Disease Control and Prevention. Guidelines for school and community programs to promote lifelong physical activity among young people. Morbidity and Mortality Weekly Report 46 (No. RR-6):1-36, 1997.
69. Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance System Website.
70. Andersen, R.E., Crespo, C.J., Barlett, S.J., Cheskin, L.J., and Pratt, M. Relationship of physical activity and television watching with body weight and level of fatness among children. Journal of the American Medical Association 279:938-942, 1998.
71. Pearl, D. Television and behavior: Ten years of scientific progress and implications for the eighties. Vol. 1. Washington, DC: US Department of Health and Human Services, publication no. ADM 82-1195, 1982.
72. Huesmann, L.R. and Eron, L.D. Cognitive processes and the persistence of aggressive behavior. Aggressive Behavior 10:243-251, 1984.
73. Resnick, M.D., Bearman, P.S., Blum, R.W., et al. Protecting adolescents from harm. Findings from the national longitudinal study on adolescent health. JAMA 278(10):823-832, 1997.
74. Vermont Department of Health and Vermont Department of Education. The 2001 Vermont youth risk behavior survey-Statewide report, 2001.
75. Search Institute. Healthy Communities - Healthy Youth, 1996.
76. Scales, P. C., & Leffert, N. Developmental assets: A synthesis of the scientific research on adolescent development. Minneapolis: 1999.
77. Scales, P. C., Benson, P. L., Leffert, N, and Blyth, D.A. Contribution of developmental assets to prediction of thriving among adolescents. Applied Developmental Science 4(1):27-46, 2000.
78. Search Institute. Developmental assets: A profile of your youth. Vermont statewide aggregate data. Minneapolis: April, 1998.